

**NAPA COUNTY
STORMWATER MANAGEMENT PROGRAM
(NCSWMP)**

For fiscal years 2003/2004 through 2007/2008

Draft Date: December 12, 2003

Sponsored by:

Napa County Flood Control and Water Conservation District

Member Agencies:

City of Napa
Town of Yountville
City of St. Helena
City of Calistoga
Napa County

For more information, contact the Napa County Flood Control and Water Conservation District at: 707-253-4823

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

Table of Contents

I.	Table of Contents.....	2
II.	Background.....	4
III.	Existing Watershed Activities.....	6
	A. Public Education and Outreach.....	6
	B. Public Involvement and Participation.....	10
	C. Illicit Discharge Detection and Elimination.....	13
	D. Construction Site Runoff Control.....	14
	E. Post-Construction Runoff Management.....	16
	F. Municipal Operations.....	18
	G. Watershed Studies and Monitoring.....	20
	H. Watershed Conservation and Restoration.....	24
IV.	Administration, Planning, Funding.....	26
	A. County-wide Program.....	26
	B. Local Program – City of Napa.....	29
	C. Local Program – Town of Yountville.....	31
	D. Local Program – City of St. Helena.....	33
	E. Local Program – City of Calistoga.....	35
	F. Local Program – County of Napa.....	36
V.	Geographic Land Use Description.....	39
VI.	Pollutants of Concern.....	39
VII.	The Storm Water Management Program.....	39
	A. Public Education and Outreach Element.....	41
	B. Public Involvement and Participation Element.....	45
	C. Illicit Discharge Detection and Elimination Element.....	47
	D. Construction Site Runoff Control Element.....	50
	E. Post-Construction Runoff Management Element.....	54
	F. Municipal Operations Element.....	57

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

VII. Glossary.....61

VIII. Abbreviations.....63

IX. Appendixes - List of Maps and Charts

- Map 1 – Municipalities and Major Waterbodies
- Map 2 – Watershed Boundaries
- Map 3 – Napa County Zoning
- Table 1 – SWMP Organization Overview
- Table 2 – Public Education and Outreach Element
- Table 3 – Public Involvement and Participation Element
- Table 4 – Illicit Discharge Detection and Elimination Element
- Table 5 – Construction Site Runoff Control Element
- Table 6 – Post-Construction Runoff management Element
- Table 7 – Municipal Operations Element
- Table 8 – Street Sweeping and Stormdrain Maintenance Schedule
- Table 9 – Existing Outreach Material Summary Chart
- Table 10 – Activities Correlated to Permit Requirements

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

I. BACKGROUND

Runoff from storms is part of the natural hydrologic process. Rainwater that does not infiltrate into the ground flows by gravity into our creeks, rivers, lakes, and estuaries. The development of land for housing, agriculture, business, and industry changes the quantity and quality of runoff entering our waterways. The construction of roofs, roads, and other impervious surfaces increases the volume and velocity of stormwater runoff that enters our creeks. In response, our creeks and rivers become incised and erode their banks to handle the extra water. This runoff may also carry a wide range of pollutants including sediment, nutrients, pathogens, trash and debris, petroleum hydrocarbons, and synthetic organics such as pesticides.

Stormwater runoff does not originate from a distinct "point" source (e.g. a sanitary sewer treatment plant outfall or industrial facility); rather, it is considered a nonpoint source pollution. Nonpoint sources (NPS) of pollution originate from runoff from lawns, streets, and agriculture. Scientific evidence shows that although huge strides have been made in cleaning up major point sources of pollution, our precious water resources are still greatly threatened by polluted runoff from nonpoint sources. In fact, the 1994 National Water Quality Inventory Report to Congress states that nonpoint sources of pollution are the leading cause of impairment in our Nation's rivers and streams. Urban runoff, in particular, is the leading source of pollution in estuaries and is the third and fourth leading source of pollution in lakes and rivers respectively. Specific pollutants of concern identified for the Napa River are nutrients, pathogens, and sedimentation/siltation.

In 1972, the Federal Water Pollution Control Act (also referred to the Clean Water Act (CWA)) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added §402(p) that established a framework for regulating stormwater discharges under the NPDES Program. Subsequently, in 1990, the United States Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting stormwater discharges from industrial sites (including construction sites that disturb more than five acres) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. These regulations, known as Phase I regulations, require operators of medium and large MS4s to obtain stormwater permits.

On June 21, 1995, a water quality plan for the San Francisco Bay Basin was published by Region 2 California Regional water Quality Control Board. The plan shows the Napa River and its tributaries as part of the San Pablo Basin. The plan required that the Cities of Napa, St. Helena, Calistoga, American Canyon, the Town of Yountville, and Napa County develop and conduct baseline control programs for stormwater runoff.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

In May of 1999 the USEPA approved the 1998 California 303 (d) List and Total Maximum Daily Load (TMDL) Priority Schedule and listed the Napa River as a high priority for restoration and protection. The following pollutants were listed as exceeding water quality standards:

- Nutrients, medium priority, source-agriculture
- Pathogens, medium priority, source-agriculture, urban runoff/storm sewers
- Sedimentation/Siltation, high priority, source-agriculture, construction/land development, urban runoff/storm sewers

Furthermore, Steelhead Trout were listed as a threatened species in the Napa River Watershed under the Endangered Species Act on June 17, 1998.

The San Francisco Bay Region California Regional Water Quality Control Board has begun a TMDL sediment study for the Napa Valley watershed. The primary focus of this study is to characterize the nature and degree of water quality impairment by sediment, particularly with regard to its potential effects on sensitive species such as Steelhead Trout. The study will collect data and develop a model to determine what caused the decline in the population of steelhead trout and other species in the Napa River watershed. Additional TMDL studies of nutrients and pathogens are scheduled.

On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II, requiring permits for stormwater discharges from small MS4s and from construction sites disturbing between 1 and 5 acres of land. The Cities of Napa, St. Helena, the Town of Yountville, and the County of Napa applied for the Phase II permit on March 10, 2003. The City of Calistoga submitted its application for coverage on October 27, 2003. To meet the requirements of the NPDES Phase II regulations, these municipalities will implement a stormwater management program (SWMP) to reduce stormwater pollution. The SWMP for the Phase II municipalities in Napa County includes a County-wide Program and Local Programs.

The countywide program will allow the program partners to share staff and financial responsibilities for many of the tasks in the SWMP, particularly the public education and outreach and public participation programs. This will not only save money, it will also ensure that a consistent message regarding stormwater pollution is conveyed throughout the county. The local programs will be largely focused on in-house operations including construction and post-construction site review and inspections, illicit discharge detection and elimination efforts, and municipal maintenance activities.

Other Public agencies such as school districts, Napa State Hospital, Napa Valley College, and the Napa Town and Country Fair are listed in the draft state permit as non-traditional operators of municipal separate stormwater systems and may, in the future, join the countywide program

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

II. EXISTING WATERSHED ACTIVITIES

The following is a summary of programs and activities that are protecting and improving water quality in Napa County. This summary is a testimony to the efforts of many public agencies and departments, farmers, businesses, educators, and nonprofit organizations. Although many of these programs and activities are outside NCSWMP's sphere of influence, NCSWMP partners will benefit from and possibly contribute to their future success.

PUBLIC EDUCATION AND OUTREACH

Outreach to Local Government Officials

Presentations

(Cities of Napa, St. Helena, Calistoga, Town of Yountville, and County of Napa)

Presentations were given to each of the city councils and Board of Supervisors on the Phase II requirements and the SWMP that was submitted to the SFRWQCB on March 10, 2003.

Community Events

Earth Day

(City of Napa, Napa County RCD, Napa County DEM)

Staffed a booth at the annual Earth Day celebration at the Connolly Ranch for the past six years. The purpose of the booth was to provide information on the proper disposal of household hazardous waste and used oil, general recycling practices, and composting of yard waste.

Home and Garden Show

(City of Napa and Napa County DEM)

Staffed a booth at the Home and Garden Show providing information on household hazardous waste disposal and used oil recycling. Tee shirts promoting used oil recycling were given out to the public.

Business Outreach

NapaMax

(City of Napa)

The City of Napa has sponsored NapaMax since 1998. NapaMax is a resource for businesses, contractors, and the general public to acquire needed materials and to discard unwanted materials. NapaMax's purpose is to conserve energy, resources and landfill space by providing the public with an easy alternative. In the past, hard copies of the NapaMax were provided to the Solano-Napa Builders for distributing to clientele. NapaMax is now online at www.napamax.org.

Used Oil Recycling

(City of Napa, Napa County DEM, and Napa County RCD)

The City of Napa and DEM conduct many outreach programs to encourage the public to recycle used motor oil. These programs include point-of-purchase

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

information, ads in the Yellow Pages and brochures that are handed out to the public.

Business Inspections and Outreach

(Napa County DEM)

The Napa County DEM currently regulates approximately 700 food service facilities and nearly 1,200 facilities that generate, handle, or store hazardous waste. The DEM sends an annual newsletter to regulated businesses with information on proper hazardous waste disposal, mat washing, and other stormwater pollution prevention BMPs.

The DEM also incorporates stormwater pollution prevention education during routine business inspections. Nonstormwater violations are sometimes referred to the DFG or the County DA for enforcement action under DFG Code 5650.

Napa Sustainable Winegrowing Group (NSWG)

The Napa Sustainable Winegrowing Group (NSWG) is a grant-supported organization initiated in 1997, comprised of local grapegrowers, educators such as representatives of the UC Cooperative Extension, and local government and federal representatives, such as the Napa County Resource Conservation District (NCRCD), the Agricultural Commissioner, and the Natural Resources Conservation Service (NRCS). NSWG continues to offer educational workshops to local grapegrowers, farm workers, and residents.

The group's goal is to educate local growers and residents of sustainable farming practices. NSWG holds approximately three workshops a year, two of which are presented in English and one in Spanish. Workshop topics cover issues such as erosion control, integrated pest management, water quality, water conservation, vineyard safety, wildlife and wildlife habitat preservation and sustainable and organic farming.

Outreach to Residences

Hazardous Waste Collection/Recycling

(City of Napa and Napa County DEM.)

16,000 trash totter decals were installed on residential trashcans with information in English and Spanish about proper disposal of toxic materials, motor oil recycling, and included the message "only rain down the drain". The City of Napa and Napa County DEM purchased radio advertisements on a local auto repair show encouraging used oil recycling. The ads were paid for with funds from the California Integrated Waste Management Board. Used motor oil recycling locations were advertised in the Pacific Bell Smart Yellow Pages.

Distributed flyers to garbage customers with information on the Napa/Vallejo Waste Management Authority's Household Hazardous Waste Collection Facility. This waste collection facility is open year round. In addition, Napa County DEM

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

holds 2 to 4 household hazardous waste collection events for the citizens in the northern part of the county.

The Instant Environmentalist – simple Steps to Protect and Preserve the Napa Valley

(City of Napa, Cuvaison Winery, Environmental Resolutions, Inc, Tom Gamble, Law Offices of Hines and Carr, Napa Valley Vintners Assoc., Napa County)

The Leadership Napa Valley Group produced a 20-page booklet in May of 2002 for Napa County residents on simple things we can do to improve the environment. Issues covered include water conservation, energy conservation, recycling, and household hazardous waste. Booklets are distributed at community events, teacher workshops, and a copy is available for downloading at www.napavintners.com/community/Instant_Enviro_open.html.

Water-wise Landscaping

(City of Napa, Town of Yountville)

In early summer 2002, the City of Napa and the Town of Yountville held two sessions of *Water-Wise Landscaping for the Napa Valley*, a public seminar on efficient lawn watering, low-water-use plants, and drip irrigation. The seminar was promoted with an insert in local garbage bills and a general press release. Combined attendance was 190. A survey showed that 93% of attendees found the seminar “Very Useful” or “Quite Useful.”

In May 2003, the cities again joined forces to present in-depth workshops on the following four topics:

- *Water-Wise Landscaping Fundamentals and Site Preparation*
- *Understanding Sprinkler Irrigation Systems*
- *Understanding Drip Irrigation Systems*
- *Selecting Plants for Your Water-Wise Landscape*

The four workshops were heavily promoted in local newspapers and in two garbage bill inserts. Combined attendance was nearly 300, including people from every part of Napa County. Surveys showed 95% satisfaction. With the assistance of Master Gardeners and other local professionals, these workshops help residents learn to cut back on irrigation and eliminate wasteful runoff that may contain pesticides and fertilizer

Yardwaste and Car Washing

(City of Napa)

Issued two press releases. One to inform the public of the need to not dispose of yardwaste down the storm drain and one to inform the public on how to wash their vehicles without damaging the creeks.

Napa County Storm Water Management Program (NCSWMP)

Action Plan 2003 to 2007

Outreach to Schools

Environmental Education Coalition

(City of Napa)

Staff participated in the Environmental Education Coalition of Napa County which produced an Environmental Education Guide (EEG) for grades K-12. The EEG is a resource directory of government agencies and NGO's who have outreach programs available to schools in Napa County. The EEG provides information on the programs, how they correlate to the State Education Standards, when they are available, and who to contact. The coalition has published 1,500 guides and distributed them to teachers throughout Napa County.

Teacher Workshop

(City of Napa)

Sponsored a teacher's workshop on recycling and pollution prevention in March 2002.

Recycling Poster Contest

(City of Napa)

The City of Napa has sponsored a recycling poster contest for K-6 grade students in public and private schools. Last year 350 posters were submitted and one poster was chosen to adorn a local billboard.

Classroom Presentations and Teacher Support

(Napa County RCD)

The RCD gives about 20 presentations per year on reducing nonpoint source pollution. This program has been in existence since 1998 when it was first introduced through a partnership between the AmeriCorps Watershed Project and the City and County of Napa. Last year, the RCD used money from the Napa Valley Unified School District MOU and from monies from the City of Napa which help pay for the services provided by the Education Coordinator on staff. The target audience for these presentations has been primarily elementary and middle school students, although high school presentations have occurred. The program is advertised through a direct mailing to all teachers in the Napa Valley Unified School District and through the Environmental Education Guide produced by the Environmental Education Coalition of Napa. Since 1998, participation has remained relatively static at about 20 classroom presentations per year. A copy of the outline and the post presentation quiz are available upon request.

The RCD also provides resources for local teachers regarding the protection and enhancement of water quality. This service has been a part of the RCD since the early 1990's. Teacher support is advertised through word of mouth, the Environmental Education Guide, letters to teachers in the Napa Valley Unified School District. Resources and support available to teachers include a curriculum library, planning and implementing watershed restoration activities, water quality training, storm drain stenciling, and other service projects that

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

have been created for a specific school or teacher need. Funding for these activities have come from an MOU with the Napa Valley Unified School District, the City and County of Napa, and to a lesser extent, RCD discretionary funds.

Watershed Education in the Classroom and Community

(Friends of the Napa River)

This project brings watershed education into 3rd-5th grade classrooms. Students and teachers embrace the project because it brings watershed science into the classroom in a manner that kids can enjoy, seeing aquatic insects, studying topography, playing watershed games, learning about the Napa River and its connection to groundwater and the San Francisco Bay. In addition to the classroom setting, the project has an outreach program component that takes it into the community.

Pilot Education Project

(Napa County RCD, Napa County Farm Bureau, Acorn Soupe)

The Carneros Creek Stewardship, in conjunction with the Napa County Farm Bureau, Napa RCD and Acorn Soupe, are piloting a watershed restoration/education project. The project is modeled after the Students and Teachers Restoring a Watershed (STRAW) Program, which is implemented in Sonoma and Marin counties. The goal of implementing such a project in Napa is to actively engage grade school students in creek restoration projects in collaboration with farmers, erosion control specialists, biologists, and community volunteers. On December 6, 2002 students went into the Carneros Creek watershed and re-planted a section of stream bank along Carneros Creek. Ellie Insley and Associates developed the restoration design; Walsh Vineyard Management supplied the trees and necessary restoration tools; Cuttings Wharf Vineyard provided the restoration site. It is hoped that the project can be expanded next year.

PUBLIC INVOLVEMENT/PARTICIPATION

Public Review and Comment

(City of Napa)

Provides drafts of BMP guidelines to the public for review and comment.

Storm Drain Stenciling Program

(City of Napa, Yountville, Calistoga, Napa County)

All local programs except St. Helena currently support storm drain stenciling activities. Local municipalities generally refer interested parties to Napa County RCD and Napa County DEM. DEM provides the materials and the RCD provides support to community volunteers. Most of the municipalities have used a spray paint stencil of a fish that says "No Dumping". The City of Napa has also used 3 by 5 inch, "Drains to the Bay" Stormdrain markers. Some data has been collected on the locations, number of volunteers, and date of the events, but the information has not been consolidated. See SWMP for future record keeping and reporting of SD stenciling activities.

Napa County Storm Water Management Program (NCSWMP)

Action Plan 2003 to 2007

Volunteer Water Quality Monitoring

(Napa County RCD)

The RCD has an ongoing volunteer water-quality monitoring program. There are currently 6 volunteers monitoring 20 sites on 9 streams in Napa County. The RCD provides equipment, materials, and training to the volunteers. Volunteers measure dissolved oxygen, temperature, pH, and conductivity on a weekly basis. Qualitative observations such as water color, appearance, odor, depth, and flow are also noted. The RCD has developed a database for tracking water quality at each of the monitoring sites.

Coast and Creek Cleanup Day

(Napa County, Napa County RCD, City of Napa,)

Coordinated the Coast and Creek Cleanup Day event in 2002. Local programs provided trucks and staff to haul away the garbage volunteers remove from Napa County waterways. In 2002, 187 volunteers removed over 4,000 pounds of garbage from 18 sites in Napa County.

Volunteer Park Maintenance

(City of St. Helena)

In 2002, the City of St. Helena implemented a pilot program in Mennen Park where volunteer labor is used to control weeds and no pesticide/herbicide is used. If successful, other parks will be phased in over the next few months (Meily Park, the next in this pilot program, to be constructed this fall).

Napa River Watershed Stewardships

(Napa County RCD and Partners)

The Napa RCD's position of Watershed Coordinator/Stewardship Facilitator was extended through a grant from the State Department of Conservation. These funds will allow Napa RCD to maintain its Stewardship Program and provide assistance to developing stewardship groups throughout the Napa River watershed. A great interest in stewardship process has arisen over that last two years and requests for assistance are persistent. Individuals have contacted the Napa RCD for assistance in developing stewardships in the following watersheds:

Carneros Creek Stewardship

(Napa County RCD and Partners)

In their effort to protect and enhance the resources of the Carneros Creek watershed, the Carneros Creek Stewardship, with assistance from the Napa RCD and its Partners, are embarking on a quest for information and data regarding water and watershed conditions in their southwest Napa County watershed. The Stewardship has been meeting since February 2001, bringing residents and other parties interested in the Carneros Creek watershed together to address resource concerns. Programs that the Stewardship are currently undertaking include the following:

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

A telemetric stream gauge was installed on Carneros Creek in November 2001 and is continuing to gather data on water flows. Data from the telemetric stream gauge is available to program participants on a 24-hour basis and allows them to more effectively manage their use of water in accordance with the needs of the watershed and the requirements of their water permits.

Rutherford Dust Restoration Team (RDRT) (Rutherford Dust Society, NRCS, Napa County RCD, Napa County)

The Rutherford Dust Society has developed a stewardship, the Rutherford Dust Restoration Team (RDRT) along a 4½-mile stretch of the Napa River between Zinfandel Lane and Oakville Crossroad. The Team has over 90% participation from landowners in the area and they are moving forward with an assessment.

Areas of study/assessment include: preliminary hydrologic analysis, preliminary fluvial geomorphology, preliminary riparian vegetation mapping, preliminary fish habitat survey, and GIS mapping. Phillip Williams and Associates (PWA), the Napa RCD, and NCFCWCD were chosen to conduct the assessment and fieldwork, which began in November. RDRT will use the information from the assessment to adjust land management practices and to prioritize restoration and enhancement projects.

Murphy Creek (Napa County RCD)

The Murphy Creek Stewardship Group has been meeting regularly since July 2002. The primary focus with this group is to better understand water rights, availability, diversions, and flow of their creek. The RCD has purchased and installed a remote telemetric stream gauge on Murphy Creek which can be accessed through a telephone number, and will give a real time reading of the water level in Murphy Creek.

Salvador Creek (Napa County RCD, City of Napa, NCFCWCD)

The City of Napa and the NCFCWCD hired the RCD to develop a hydrologic model for Salvador Creek and to coordinate and support the Salvador Creek Stewardship. Salvador Creek runs through the northern part of the City and sometimes causes local flooding during large rain events. The City and County decided to initiate and support a stewardship group to provide a forum for the community to comment on the design of future flood protection projects along the creek.

The Salvador Creek Stewardship Group has just begun meeting, and will be convening on a regular basis. This group differs from many others they are located in a primarily urban environment having a highly modified stream channel. This presents a new set of challenges and opportunities for new relationships within the stewardship. The primary concern for the group is to

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

improve wildlife habitat and protect private property from flooding. Because there are two high schools along the creek, there are many possibilities for student led restoration and monitoring.

Chase Creek

(Napa County RCD)

Landowners along Chase Creek began meeting this year and have agreed to fund a creek study in the amount of \$30,000. The study was completed and a grant proposal was submitted to the California Department of Fish and Game for restoration funding. The group has expressed an interest in expanding their efforts and the Napa RCD is assisting.

Milliken Creek

(Napa County RCD)

Residents within the Milliken Creek watershed have also expressed interest in starting a stewardship. Maps have been developed, watershed addresses have been obtained and the group will likely be initiated in early 2003.

ILLICIT DISCHARGE DETECTION AND ELIMINATION

Legal Authority

(City of Napa)

The City of Napa has produced a draft stormwater ordinance.

Response and Enforcement

(Cities of Napa, Yountville, St. Helena, Calistoga, and County of Napa)

- ✓ Municipal staff from all local programs report and respond to illicit discharges seen in the field or are reported by the public.
- ✓ The City of Napa employs two full-time Code Enforcement Officers to monitor and enforce the provisions of the municipal code, which include the stormwater pollution prevention program. City of Napa public works and building inspectors provide surveillance and monitoring of pollution control at construction sites and enforces the City's erosion control policies. City of Napa fire Dept. responds to hazardous waste spills.
- ✓ The NCFCWCD is cleaning up polluted sites along the Napa River as part of their flood protection project.

Business Inspections

(Napa County DEM)

The DEM currently regulates approximately 700 food service facilities and 1,200 hazardous waste generators and handlers including auto service facilities, dry cleaners, and wineries. Inspectors refer violations of water pollution laws to the DFG or the County DA for enforcement under DFG Code 5650.

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

CONSTRUCTION SITE RUNOFF CONTROL

Erosion and Sediment Control

(City of Napa)

The City of Napa Policy Resolution 27-Standard Mitigation Measures requires the following for new developments:

Water #4 - For any construction activity that results in the disturbance of five (5) acres or greater total land area, or is part of a larger common plan of development that disturbs five (5) acres or greater total land area, Developer shall file a Notice of Intent with the California Regional Water Quality Control Board ("SWRCB") prior to any grading or construction activity. In the event construction activity for the project occurs after the SWRCB has changed its General Permit for construction activity to cover disturbance(s) of one (1) acre or more, this measure shall apply to any construction activity for this project which results in the disturbance of one (1) acre or greater total land area, or is part of a larger common plan of development that disturbs one (1) acre or greater total land area.

Water #5 - The Developer shall ensure that no construction materials (e.g., cleaning fresh concrete from equipment) are conveyed into the storm drain system. The Developer shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials into the stormwater drainage system.

Water #6 - All materials that could cause water pollution (i.e. motor oil, fuels, paint, etc.) shall be stored and used in a manner that will not cause any pollution. All discarded material and accidental spills shall be removed and disposed of at an approved disposal site.

Water #7 - The developer of an industrial facility shall obtain an NPDES permit from the SWRCB prior to the establishment of the use.

Water #8 - All construction activities shall be performed in a manner that minimizes, to the maximum extent practicable, any pollutants entering directly or indirectly the stormwater system or ground water. The Developer shall pay for any required cleanup, testing and City administrative costs resulting from consequence of construction materials into the stormwater drainage system.

Water #10 - Developer shall meet the requirements of discharging to a public storm drainage system as required to ensure compliance by the City with all state and federal laws and regulations related to stormwater as stipulated in the Clean Water Act. Developer shall meet the requirements of the National Pollutant Discharge Elimination System ("NPDES") permit in effect prior to completion of project construction for stormwater discharges from the municipal stormwater

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

system operated by the City of Napa. Developer shall comply with the Stormwater Pollution Mitigation Plan ("SWPMP") submitted by Developer as part of its application as (modified and) approved by the Director of Public Works.

Water #11 - Developer shall mark all new storm drain inlets with permanent markings, which state "No Dumping—Flows to River." This work shall be shown on improvement plans.

Geology/soils3 - Developer shall provide an erosion and sediment control plan and a schedule for implementation of approved measures to the Public Works Director for approval with the first improvement plans submitted for review. No grading and excavation shall be performed except in accordance with the approved plan and schedule.

Geology/soils 4 - Hydroseeding of all disturbed slopes shall be completed by October 1; Developer shall provide sufficient maintenance and irrigation of the slopes such that growth is established by November 1.

Erosion and Sediment Control (County of Napa)

- ✓ By ordinance (Conservation Regulations, County Code Title 18 Chapter 108) the County of Napa requires Standard Erosion Control Measures (specifying "standard measures" for erosion and sedimentation control) on any "permitted" development on land slopes of 5 to 15% and full Erosion Control Plans on projects located on slopes of 15 to 30%. By the same regulations, projects on slopes above 30% are required to secure a special Use Permit and projects on slopes above 50% must prove grounds for a Variance along with obtaining a Use Permit. Erosion Control Plans are also required for all roadway projects which involve earth disturbing activity on lands having a slope of 5% slope or greater.
- ✓ Adequacy of submitted Standard Erosion Control Measures are evaluated by the County's Building Codes Administrator. The Building Inspection Division is responsible for site inspection of Standard Erosion Control Measures. Submitted Erosion Control Plans (ECPs) are held to a higher level of review. ECPs are processed by staff planners under CEQA guidelines and are technically reviewed by Ralph Osterling Consultants, a private firm with a local representation. Final approval of an ECP is only granted if is recommended for approval by the consultant. Installation of approved ECPs are verified in the field by the consultant and rechecked prior to each rainy season until the Plan has been "finalized" by the consultant. Failures or inadequacies in the Plan are reported to the County by the consultant for enforcement action. Any repairs to the installation or field modification to the Plan must be acceptable by the consultant.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

- ✓ Erosion Control Plans are also required for new agricultural developments which involve sites of an average land slopes of 5% or greater. The Napa County Resource Conservation District (RCD) reviews all new vineyard developments and passing on its recommendations to Napa County Conservation, Development, and Planning Department which then conditions the ECP appropriately. Those agricultural ECPs that are not yet “finalized,” are inspected by the RCD prior each rainy season and assessed based upon their effectiveness and recommend changes and modifications are reported for enforcement if needed.

POST-CONSTRUCTION RUNOFF MANAGEMENT

Legal Authority

(County of Napa)

Beyond what is already authorized under the Napa County’s Conservation Regulations (County Code Title 18 Chapter 108), The County of Napa has an Emergency Ordinance (No.1204) in place that prohibits development within 150 feet of Class I and II streams and within 25 feet of Class III streams. The County Board of Supervisors is currently considering a draft Stream Setback Ordinance for adoption that would create similar setbacks along all streams in the unincorporated areas of Napa County.

Plan Review Process

(City of Napa)

- ✓ City of Napa Planning staff performs environmental reviews in accordance with CEQA checklists, which include stormwater impact assessment. Public Works Building and Urban Drainage Division staff attends project evaluation and review committee (PERC) meetings to discuss and comment on projects. Pre-application information on implementing BMPs is provided for commercial projects and is being developed for other types of projects.
- ✓ City of Napa Planning staff sends all PERC’s referrals to the RWQCB for review.

Design Standards

(City of Napa)

- ✓ The City of Napa Policy Resolution 27-Standard Mitigation Measures Water #4 requires that:
 - Developer shall comply with the Stormwater Pollution Mitigation Plan submitted by the developer as part of its application as (modified and) approved by the Director of Public Works.
 - Developer shall mark all new storm drain inlets with permanent markings, which state “No Dumping – Flows to River.”

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

- ✓ The City of Napa also requires the following for larger projects.
 - The developer provides on site detention of stormwater such that the peak flow from a 100-year storm does not exceed predevelopment runoff.
 - Ditch/detention facilities are designed with an upstream forebay for the purpose of trapping and containing debris and sediment.
 - Detention ditches include a flow-spreading device at the inlet.
 - Designs for detention ditches include access for maintenance.
 - The detention channel landscape and erosion control plans are reviewed and approved by the DFG and the Public Works Department.
 - The detention channel corridor and appurtenances are included in the Landscape Maintenance Districts. The detention channels have maximum side slopes of 3:1.

Long-term Maintenance of BMPs

(City of Napa)

The City of Napa requires developers to submit maintenance plans for detention facilities. Assessment and maintenance districts have been established to maintain detention systems.

Watershed Coordinator Position

(County Of Napa)

On June 12, 2001, the Board allocated a Watershed Coordinator position to the Conservation, Development and Planning Department to provide management oversight and administration of a number of watershed work programs and to provide assistance in the implementation of the Napa River Watershed Task Force Phase II Report recommendations. The Board also created a new Deputy Planning Director position in May of 2001 to oversee the newly created Conservation Division

CONSERVATION DIVISION

(County Of Napa)

This new Division of the Conservation, Planning and Development Department was created to provide resource management and oversight over the County Conservation Regulations and provide assistance to the Watershed Coordinator in the development and implementation of the Napa River Watershed Management Program efforts as envisioned by the Task Force and the community. The Division provides staff support for the Napa River Watershed Oversight Committee, Wildlife Conservation Commission and the Watershed Conservancy-WIC Board. Staff further administers of the County's California's Land Conservation (Williamson) Act, conducts reoccurring regulatory inspections and reporting obligations for mining operations within the County per requirements under the Surface Mining and Reclamation Act (SMARA), participates in the State review process for timber harvests permits (THP) and conversions (TCP), and processes agricultural replant plans, agricultural erosion control plans and reservoir plans.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

The Division, and its predecessor section, has to date developed a detailed GIS-based drainage mapping for Napa County, identified and mapped vineyard development over the last 10 years, developed a GIS-based map of existing and vineyard development and is in the process of developing a map of potential vineyard lands, prepared initial vegetative mapping of the County based on CALVEG data, and created a GIS-based slope map. The Division is currently working on a GIS-based stream network and related stream class map for the entire County. The Division has also embarked on a program to convert the County's current paper-based Environmental Resource Map System into a GIS-based one. The conversion project is more than 60% complete and continues to advance. These maps are available to serve the public and will provide the basis for future environmental work in the County, supporting individual, drainage and watershed assessments, as well as the Program EIR.

MUNICIPAL OPERATIONS

Street Sweeping

(Cities of Napa, St. Helena, Calistoga, Town of Yountville, Napa County)

The City of Napa sweeps their streets on a scheduled rotation basis between January and September. Street sweeping is done on an "as needed" basis during the months of October through December to enhance drainage and improve safety. The City also has special leaf pickup crews assigned to clear streets prior to the first rainstorms. Approximately 4,700 cubic yards of debris are removed from city streets and parking lots each year.

The Town of Yountville sweeps their streets twice per month throughout the year.

The City of St. Helena sweeps their streets once per week.

The City of Calistoga sweeps major thoroughfares once per week and all other streets twice per month. In addition to the routine sweeping schedule, streets are swept five times per week during the leaf season and the City provides dumpsters to residences to dispose of leaves.

The County of Napa sweeps the streets in the Airport Industrial Area and the Silverado Country Club six times per year.

Storm Drain Maintenance

(City of Napa)

The City of Napa maintains over 1,000 drainage inlets and 90 miles of storm drainpipes. Some storm drain inlets and catch basins are cleaned out before the onset of the wet season. Problem inlets have been identified and posted on a computer-generated map. Cleaning is done manually and by using vacuum hoses from the street sweepers. The City has installed trash racks at the outfall of ditches and City crews regularly clean them out during the wet season.

Napa County Storm Water Management Program (NCSWMP)

Action Plan 2003 to 2007

Stormwater Pump Stations

(City of Napa)

The City of Napa operates one stormwater pump station well that is cleaned by City crews.

Litter Control

(Cities of Napa, St. Helena, Calistoga, Town of Yountville, County of Napa)

- ✓ Municipal staff cleans up trash at city parks and under city bridges.
- ✓ All local programs provide litter receptacles at public areas and empty them on a regular basis.
- ✓ The City of Napa Police Department and Code Enforcement staff works with the homeless to cleanup trash along the Napa River.

Parks and other Public Facilities

(City of Napa)

- ✓ The City of Napa uses an IPM approach that tolerates low-level weed and insect problems. A certified Pest Control Advisor determines what pesticides will be used and evaluates the alternatives. Lower-strength pesticides are used when possible. Pesticides are stored at the corporation yards with double containment.
- ✓ The City of Napa maintains vegetative cover on medians and embankments to control erosion. Disking was eliminated as a vegetative maintenance practice in 2002.

Public Transit

(Cities of Napa, St. Helena, Calistoga, Town of Yountville, County of Napa)

- ✓ The Napa County Transportation Planning Agency (NCTPA) provides two fixed-route services: the Valley Intercity Neighborhood Express (VINE) operates within the City of Napa and the Napa Valley Transit (NVT) operates along the Highway 29 corridor between Calistoga and Vallejo.

WATERSHED STUDIES AND MONITORING

Napa River Watershed Conservancy and Watershed Information Center (WIC)

(County of Napa)

The Napa River Watershed Task Force Phase II Final Report recommended the creation of a Napa Watershed Conservancy and a Watershed Information Center (WIC) Program. Based upon the recommendation of the Napa River Watershed Oversight Committee, the County Board of Supervisors on May 21, 2002 considered and approved a resolution creating a joint Napa River Watershed Conservancy/Watershed Information Center Board of Directors. The Conservancy-WIC Board is comprised of fourteen (14) publicly accountable members, representing a balance of community interests. The Board held their first meeting on December 18, 2002, at which time they adopted By-Laws, appointed a Chair and Vice-Chair and received an overview on the development status of the WIC Website,

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

an interactive website that will be an important communication, education and outreach component of the WIC Program.

The Conservancy Program, under guidance from the Board of Directors, is intended to support watershed restoration and resource protection activities by fostering restoration projects, coordinating land acquisitions, and utilizing the WIC for public outreach and education. The WIC Program is anticipated to be a long-term resource management program that will provide monitoring coordination efforts, inventory & assessment, data management, as well as outreach & education functions. The WIC is also recommended as a coordinator to enhance cooperation and consistency between existing watershed research and monitoring activities.

WATERSHED ASSESSMENT & PUBLIC OUTREACH

(County of Napa)

MUSCI Natural Resource Assessment, is conducting a preliminary watershed assessment and pre-planning analysis regarding hydrologic, geologic, wildlife and fisheries, riparian, land use and other information, identify data gaps and conduct additional studies as needed. The consultant is also developing a draft watershed master plan that will provide recommendations for institutional change and implementation plans to address key problems affecting the Napa River watershed. The consultant also participates in Watershed Technical Oversight Committee and Planning Commission meetings providing staff technical support for watershed issues.

The Consultant is developing a public outreach program, consisting of Watershed Academies/Workshops that will teach agriculture and wine producers, engineers, contractors, property owners, agency staff, environmental community and others, the techniques to implement projects that will restore, recover, protect and enhance salmon and steelhead habitat. The workshop materials, including classroom and field site exercises, focus on salmonid and steelhead habitat issues and opportunities for their resolution. One workshop was conducted in July 2002, with portions of the curriculum presented to abbreviated sessions for the Napa Valley Grape Growers, public workshops addressing proposed revisions to the County Conservation Regulations, and Napa Valley College classes (Hillside Vineyards and Wildlife Biology). Following adoption of revisions to the Conservation Regulations, workshops focused on watercourse classification, stream setbacks, and the conservation of anadromous salmonids will be scheduled in Spring 2003. In addition, one workshop will address the use of best management practices for implementation of watershed conservation by County Public Works road personnel. The draft assessment plan is anticipated in early 2003 with a final scheduled for completion by March 2003.

Benthic Macroinvertebrate Study

(Friends of the Napa River)

In 1999, the Friends of Napa River (FONR) began a long-term (five-year) biological monitoring program for the Napa River. FONR identified three objectives for a Napa

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

River Basin Benthic Invertebrate Study: (1) establishment of a benthic invertebrate monitoring program to assess the biological/ecological condition and trends of the organisms, (2) establishment and identification of causal relationships between land use decisions and the response and vitality of benthic invertebrate communities, and (3) development and dissemination of materials and findings for educational use.

A report, "The First-year Results from a Multimetric Monitoring Plan for Benthic Invertebrates in the Napa River Basin" (T.C. Dewberry, Ph.D., May 12, 2001), summarizing the project through its first year of sampling was presented to Friends of the Napa River. Second year results were expected to be complete in 2002.

Continuation of Two-Year Napa River Total Basin Steelhead Survey (Friends of the Napa River, Ecotrust, NCFCWCD)

The initial survey was conducted from June to September of 2001 and provided the first basin steelhead/trout count. Friends of the Napa River (FONR) in collaboration with Ecotrust, sponsored the project with supervision provided by Dr. Charles Dewberry. The NCFCWCD provided two Americorps volunteers to assist with acquiring access agreements from landowners and assist with the surveys.

The results of the study, released in December 2001, found that Steelhead/trout are more broadly distributed throughout the Napa River Watershed than was originally assumed. Moreover, population densities were locally higher than expected. Of the 101 km of streams sampled, the densities of the steelhead were as follows: in 50% they were not present; in 28% steelhead densities were low (0.5 SH/m²); in 13% steelhead densities were medium (0.5 to 1 SD/m²); and in 9% steelhead densities were high (>1 SH/m²). Steelhead densities were mostly low throughout the basin and higher in the foothills on the west side of the valley.

GIS based data/mapping of the steelhead locations has been developed and is available. The 2002 survey has been conducted and will append the 2001 observations.

Stream-Gauging Efforts (Napa RCD)

Last year the RCD was approached by a group of landowners and grape growers in the Carneros Region to install a stream gauge on Carneros Creek. These landowners pooled their money to pay for the equipment and installation of the stream gauge. The gauge has been in operation for over a year and has been a huge success. Because permitted water diverters on Carneros Creek are tied to a bypass requirement, the stream gauge assists the landowners in the timing of their diversions to meet State requirements.

The Carneros Creek Stewardship showed equal interest in installing a gauge on nearby Huichica Creek. Meanwhile, residents of the Murphy Creek watershed heard

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

about the work being done in the Carneros region and decided that they too want a similar gage on Murphy Creek, a spring-fed creek that is an excellent habitat for anadromous steelhead trout. In addition to these three telemetric stream gauges, the Napa RCD gages flows on Napa, Milliken, Hopper and Garnet creeks.

Turbidity Threshold Sampling (Napa RCD)

With funding from the State Water Resources Control Board, the Napa RCD technical staff has set up their first dedicated sediment station on Carneros Creek to measure turbidity, flow and suspended sediment concentration. The station was installed in Fall 2002 and will be followed by one or two more stations in 2003, at locations yet to be determined.

Data collected at these sites will include continuous measurements of flow (i.e. stage, converted to flow via a stage-discharge rating curve), temperature and turbidity, accompanied by suspended sediment concentration (SSC) sample measurements at strategic points during the storm hydrograph. The turbidity record and SSC measurements will be used to develop relationships between turbidity and suspended sediment concentration, so that estimates of sediment delivery over a storm or season can be developed. The relationship between SSC and discharge will be explored as well. All this information can be used to evaluate the success of the Program's storm water activities, using this creek as a test case

Napa River Watershed Mapping Partnership (SF Regional Water Quality Control Board, Army Corps. Of Engineers)

The Napa River Watershed Mapping project will begin in January 2003. A very high-resolution digital topographic map, with elevation point measurements collected on a 10-ft square grid, with vertical accuracy of 6 inches or less, and global position accurate within 1 foot, will be produced that covers the entire Napa River watershed. The topographic map will be completed by 2003. Regional Board will use the map to identify landslide hazard areas, map all roads within the watershed, and produce a complete and accurate map of all stream channels. It is expected that these products will be completed by March 2004.

Total Maximum Daily Load Study (TMDL) (SF Regional Water Quality Control Board)

The Napa River Basin Limiting Factors Analysis, completed in June 2002, evaluated factors limiting populations of three at-risk native stream species: steelhead trout, fall-run Chinook salmon, and California freshwater shrimp. This was the first phase of a proposed two-phase study intended to aid TMDL development and provide a scientific framework for the development of management priorities to protect native aquatic species, particularly at-risk species. Although sediment impairment was confirmed, other factors, including barriers to fish migration, stressful summer stream temperatures, limited flows, and habitat simplifications were also identified as important factors.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

The next phase of the TMDL, projected to begin in June 2003, will focus primarily on sediment analysis. The Regional Board will develop a sediment budget for the watershed in support of a draft sediment TMDL technical report and implementation plan. Scheduled completion of the draft is set for September 2004. In this effort, Regional Board will work closely with local stakeholders to provide information about the study, and to seek input on proposed management actions to resolve any problematic findings drawn from the sediment analysis. The proposed interim stream setback ordinance, if approved, is expected to constitute an important component of the implementation plan to resolve sediment impairment.

The Napa Green Certification Program is also expected to be an important tool for reducing fine sediment, nutrients, pesticides and other chemicals in stormwater runoff and enhancing riparian and aquatic habitat. This program funded is by the California Coastal Commission and administered and coordinated by a private consultant, Laurel Marcus and Associates, and the Napa County RCD. The objective of the Napa Green Certification program is to adopt management practices for vineyards that protect water quality and participants in the program certified as a "Green Vineyard".

Sulphur and Carneros Creeks Watershed Assessments (Napa County RCD and Partners)

The Napa RCD promotes a stewardship-based approach to watershed management, in which those with a stake in a watershed get together with their neighbors and, on the basis of shared interests, determine their own management goals. This unique approach led to a \$360,000 CALFED grant to the Napa RCD to assess the watersheds of Sulphur and Carneros Creeks and write management plans that reflect the consensus of what these concerned local people want for their creek watersheds.

Napa RCD technical staff, working in close collaboration with scientists from San Francisco Estuary Institute and Pacific Watershed Associates, are now assessing the physical condition of the stream channels and the contributing watersheds and writing management plans to meet the needs expressed by the stewardship groups. The results of assessment and planning will provide a framework for undertaking long-term restoration activities in an efficient, coordinated manner.

Assessments of both watersheds are similar and include the following study areas: geomorphology and channel form; historical ecology; fisheries biology; sediment delivery and water quality. In addition, the Carneros Creek stewardship requested a preliminary hydrologic analysis that would result in a preliminary water budget. The technical team has been meeting with stewardship representatives on a quarterly basis to exchange information and ensure that the resulting assessment and management plan are integrated with respect to the study areas. Technical reports will likely be completed in March 2003 and presented to the respective stewardship

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

groups. At that time the stewardship groups, with assistance from the technical team, will move forward with developing specific management plans tailored to their needs.

WATERSHED CONSERVATION AND RESTORATION

CalFed Arundo Eradication Program

(NCFCWCD, CCC, City of Calistoga)

In December of 2001, the Napa County Flood Control and Water Conservation District (NCFCWCD) was awarded a grant from the Sonoma Ecology Center to eradicate Arundo, an invasive riparian weed, in the Calistoga area. Concurrently, the California Conservation Corps (CCC) received a grant from the Department of Fish and Game, also to eradicate Arundo in the same area. Access agreements were received from 27 property owners. Thirty-three patches of Arundo with a total area of 45,000 square feet were mapped along the Napa River and Garnett Creek. In August of 2002, the first eradication treatments began on 23 patches of Arundo. The total area treated in 2002 was over 36,000 square feet. It is expected that eradication efforts will require 3 to 5 years to complete.

Napa Green Program

(Napa RCD, Napa Valley Grapegrowers, Napa County Farm Bureau, Napa Valley Vintners Assoc. and Partners)

The Napa Green Program is a cooperative effort of the Napa RCD, Napa Valley Vintners Association, Napa County Farm Bureau, Napa Valley Grape Growers, the Napa Sierra Club, Audubon Society and other environmental, educational, and agricultural organizations. It is modeled after the successful Fish Friendly Farming program for Sonoma and Mendocino County vineyards which is an environmental improvement program for vineyards that also offers regulatory compliance. Development of the Napa Green Program is made possible through a grant from the California State Coastal Conservancy. In September 2002, the RCD was awarded a grant in the amount of \$500,000 from the State Water Resources Control Board to implement the program once fully developed.

The Napa Green Certification Program (NGCP) will work directly with private landowners on a voluntary basis to develop "Farm Conservation Plans" and implement water quality and habitat enhancement projects on vineyard properties in the Napa River watershed. Farmers that participate in the NGCP will attend a series of classroom and field workshops where they will receive assistance in assessing the physical features of their properties and developing a "Farm Conservation Plan" that prescribes Best Management Practices (BMPs) and identifies specific water quality and habitat enhancement projects such as erosion control and stream corridor restoration projects. Once a participant's Farm Conservation Plan is completed with identified BMPs and enhancement projects, an independent certifying team comprised of staff from regulatory agencies including the RWQCB,

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Department of Fish and Game and National Marine Fisheries Service, will review the Farm Conservation Plan, visit the site, and evaluate the completeness of the plan for its compliance with environmental laws.

The goals of the NGCP are to: (1) reduce soil erosion and sediment movement from vineyards, ranch roads and other agricultural lands to waterways in the Napa River watershed; (2) increase riparian planting and stream and river corridor restoration to reduce water temperatures and improve fish and wildlife habitat; (3) address dry season streamflow reductions; and (4) facilitate self-directed and pro-active implementation of management measures needed to restore water quality and conserve threatened and endangered species.

Regional Board staff has recognized the Napa Green Certification Program (NGCP) as a model program for the holistic management and enhancement of water quality and habitat on agricultural lands (Conceptual Approach for Developing Sediment TMDLs for San Francisco Bay Area Streams, RWQCB, 2003).

Natural Resource Conservation Service (NRCS) Watershed Projects Y2002 (NRCS and Partners)

The Natural Resources Conservation Service (NRCS) has provided numerous planning, design, and consultation services to a number of Napa County private landowners, as well as state and local agencies over the past year, providing both technical services, as well as financial assistance to private landowners. In Napa County, virtually all NRCS services go toward watershed restoration activities

In year 2002, 115 county private landowners were provided with detailed conservation plans. Projects included soil erosion control plans, stream restoration and stream bank stabilization, water quality protection, wetland enhancement, grazing lands management, and wildlife/fisheries habitat management plans. NRCS also provided fish barrier removal/ habitat restoration plans to the CA Dept. of Fish and Game and State Water Resources Control Board at 4 locations (Sulphur Creek, Heath Canyon Creek, and York Creek). As a part of this effort, a fish ladder and rock pools were completed in November on Sulphur Creek, through the Sulphur Creek Land Stewardship. Construction of the fish ladder was funded through a \$40,000 CA Fish and Game Dept. grant.

The NRCS provides financial assistance in the form of cost-share incentives funds to private landowners, primarily through the Environmental Quality Incentives Program, (EQIP), and the Wildlife Habitat Incentives Program, (WHIP). These funds are directly applied to construction and implementation of on-the-ground conservation projects. In 2002, over \$270,000 in federal cost shares were awarded to 23 watershed restoration projects on private agricultural lands. When fully implemented, these projects will control soil erosion, protect water quality, and provide riparian (stream bank) habitat on hundreds of acres of watershed lands.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

NRCS also provides technical services to the Napa County Flood Control District for the county stream bank repair program. This program provides up to \$25,000 per project to private landowners at a 50% cost share level.

Proposition 50: Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002

(County of Napa)

Proposition 50 was approved on November 5, 2002, by a 55% vote. The measure provides for \$3.44 billion in funding, which includes more than \$1 billion for land/water acquisitions and \$950 million for coastal watershed and wetland protection. Napa County has put forth ten concept proposals for funding consideration under the initiative and is working with other regional entities to prioritize projects and enhance prospects for funding.

III. ADMINISTRATION, PLANNING, AND FUNDING

NCSWMP refers to the Countywide and Local Programs implemented by the County of Napa, Cities of Napa and St. Helena, and the Town of Yountville. Each agency will implement a Local Program and contribute financial and in-kind support to the County-wide Program. NCSWMP agencies will use an existing institutional arrangement, the Napa County Flood Control and Water Conservation District (NCFCWCD), to make decisions regarding the County-wide Program. NCSWMP agencies will also enter a Joint Powers Agreement (JPA) to fund the County-wide Program based on the agency's population size/assessed value. Table 1 provides an overview of the roles of the County-wide Program and the Local Programs in implementing the SWMP.

COUNTY-WIDE PROGRAM

Program Administration

The NCFCWCD will be the lead agency responsible for administering the County-wide Stormwater Management Program. Administrative duties include writing the SWMP and annual reports, coordinating meetings with local programs, and managing the financing of County-wide Program activities through a JPA and contracts with outside agencies and organizations.

Staffing

Within the County, NCFCWCD has a Stormwater Program Specialist on staff to administer and coordinate the Countywide Program. The Stormwater Program Specialist will also implement many County-wide Program activities.

County-wide activities will also be conducted by the DEM and the Napa County RCD. The DEM currently has four full-time food service facility inspectors and two staff that inspect businesses handling and storing hazardous materials. These two staff members also respond to spills and illegal dumping of hazardous materials in the incorporated and unincorporated areas of the County.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

The Napa County RCD will implement County-wide Programs associated with public education and participation. The RCD has an education coordinator, a fisheries biologist, and a stewardship coordinator on staff to implement these programs. The specific roles of DEM and RCD in implementing the County-wide Program are listed in the SWMP chart. (Tables 2-7).

Staff Duties

Specific administrative and planning functions of the Countywide Program include:

- Coordinate with other city, county, regional and state agencies to stay abreast of stormwater technology and the development of stormwater regulations. Examples include the Regional Board, California State Water Resource Control Board (State Board), Bay Area Stormwater Management Agencies Association (BASMAA) and the California Stormwater Quality Task Force (Stormwater Task Force).
- Implement County-wide Program measurable goals.
- Coordinate with Local Programs through the Agency Staff Committee (ASC). The ASC includes representatives from all NCSWMP agencies who meet quarterly to discuss common issues and identify solutions.
- Coordinate annual review meetings between Local Program and Regional Board staff.
- Write the Annual Report.

Program Structure

Public Education and Outreach – The County-wide Program will implement a number of education and outreach activities. These activities include holding workshops, distributing brochures and other materials on the use of BMPs, attending community events, conducting public surveys and presentations, inspecting businesses, developing a stormwater website, and implementing a school outreach program.

Public Involvement/Participation – The County-wide Program will be responsible for, ensuring that the public has the opportunity to participate in the development and implementation of the SWMP, coordinating a volunteer water quality monitoring program, and promoting and facilitating creek cleanup events and stewardship groups.

Illicit Discharge Detection and Elimination - The County-wide Program will develop a database to track and report illicit discharges throughout the county, train municipal staff on how to recognize and respond to illicit discharges, and develop a road kit with outreach materials that can be distributed to violators.

Construction Site Runoff Control and Post-Construction Stormwater Management in New Development and Redevelopment – The County-wide program will be responsible for developing outreach materials and holding workshops on the stormwater requirements for construction sites. The County-

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

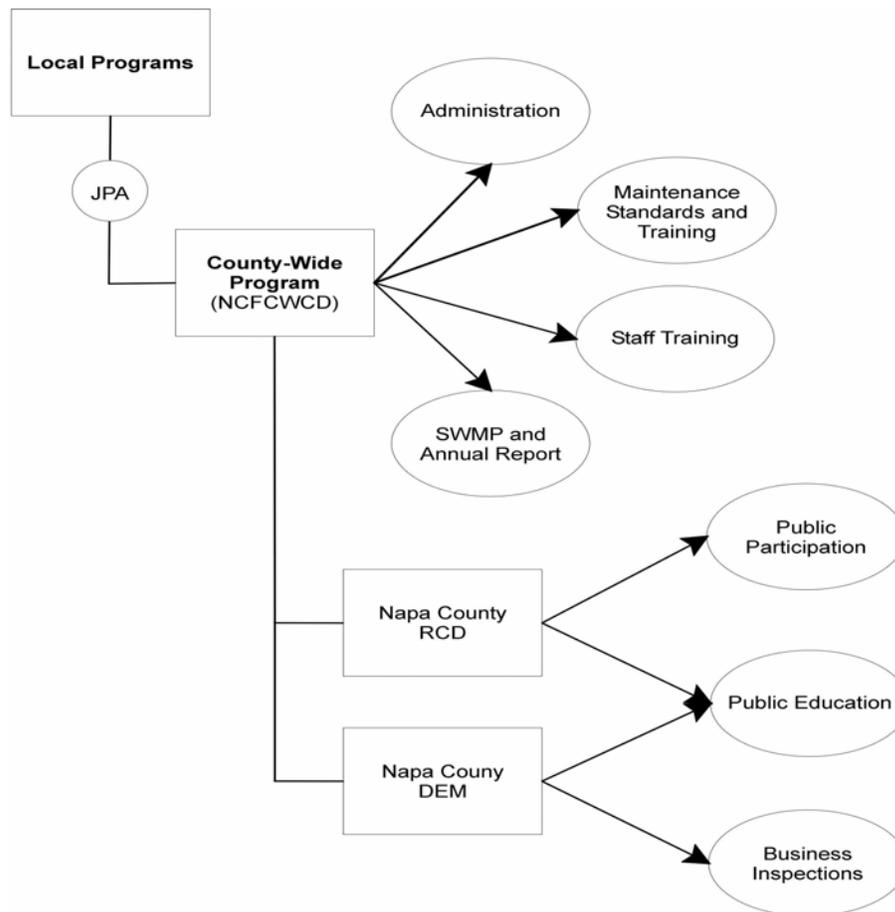
wide Program will also train city and county inspectors on how to inspect construction sites for compliance with clean water regulations.

Pollution Prevention/Good Housekeeping Municipal Operations – The County-wide program will be responsible for developing BMP fact-sheets for municipal activities like road, creek, and park maintenance, fuel dispensing, and use of chemicals. The County-wide Program will also provide training for municipal staff on the use of BMPs.

Financing

To fund new costs associated with implementing the County-wide program, some Watershed Assessment District funds will be used with the remaining balance paid by the local programs based upon population and assessed value. The Local Programs will fund the County-wide Program through a JPA administered by the NCFCWCD. The JPA will also be used to fund County-wide activities implemented by the DEM and the Napa County RCD. Grants and cooperation with Local Programs, outside agencies, and NGO's will be pursued to supplement County-wide Program activities.

Figure 1. County-wide Program Organization



Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

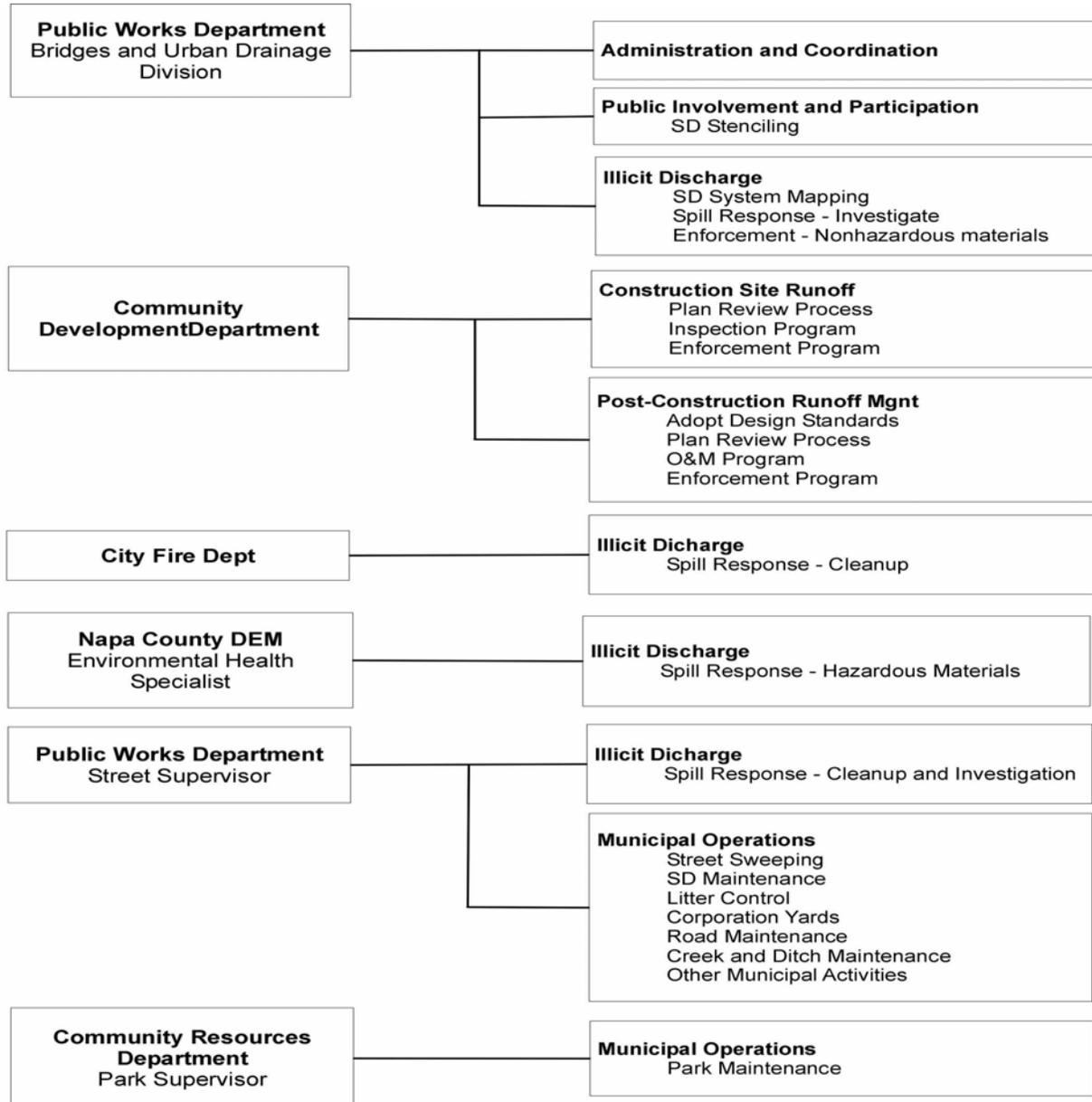
LOCAL PROGRAMS

1. City of Napa

Program Administration

The Bridges and Urban Drainage Division (BUD) of the Public Works (PW) Department will coordinate and oversee implementation of the City of Napa's local program.

Staffing and Staff Duties



Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Program Structure

Public Education and Outreach - The City will work with the countywide program to develop public education and outreach throughout the Napa river watershed. Existing city staff, involved with public education, and other agencies will be used to distribute educational material to the community related to water pollution prevention. This includes: PW Recycling/Waste Reduction, Napa County Resource Conservation District, Napa County Environmental Health, Fire Department-Public Education Officer, PW Water Conservation.

Public Involvement/Participation - The City Council will be briefed at least once a year, at a public meeting, on the status of the SWMP. The development of ordinances, policies and best management practices will include public participation. The City will also provide support to volunteer storm drain stenciling and creek cleanup activities.

Illicit Discharge Detection and Elimination - The Fire Department takes the lead in responding to hazardous spills with support from PW for cleanup when required. Public works staff will also be trained to recognize, report, and respond to illicit discharges during their daily activities. The response will include providing educational materials to violators. BUD staff is working with the GIS Coordinator in the Water Division to develop a storm sewer system map. Both the Fire Department and Napa County Environmental Health conduct visits to commercial facilities and will include water quality education and inspection with their visits.

Construction Site Runoff Control and Post-Construction Stormwater Management in New Development and Redevelopment - The City of Napa is currently reorganizing its private development review process. A Community Development Department is being established that will be responsible for processing development projects from application through construction. It is proposed that an additional construction inspector (1/2 time) to conduct water quality-related site inspections be hired. BUD staff will assist the new department in developing policies, procedures, and BMPs.

Pollution Prevention/Good Housekeeping Municipal Operations - The PW Department will implement the SWMP related to building maintenance, street maintenance, storm drain maintenance, recycling, and potable water production. The Fire Department will implement the SWMP related to spill cleanup and Fire operations. The Community Resources Department will implement the SWMP related to parks maintenance and recreation.

Local Ordinance

The City of Napa will adopt a stormwater ordinance during the 2003/2004 fiscal year. The ordinance will prohibit illicit discharges to the storm drain system, require construction sites to use erosion and sediment control measures and BMP's to control

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

other potential pollutants, and require development projects to implement BMP's to reduce long-term nonstormwater runoff. An enforcement response plan will also be adopted to enforce the ordinance.

Financing

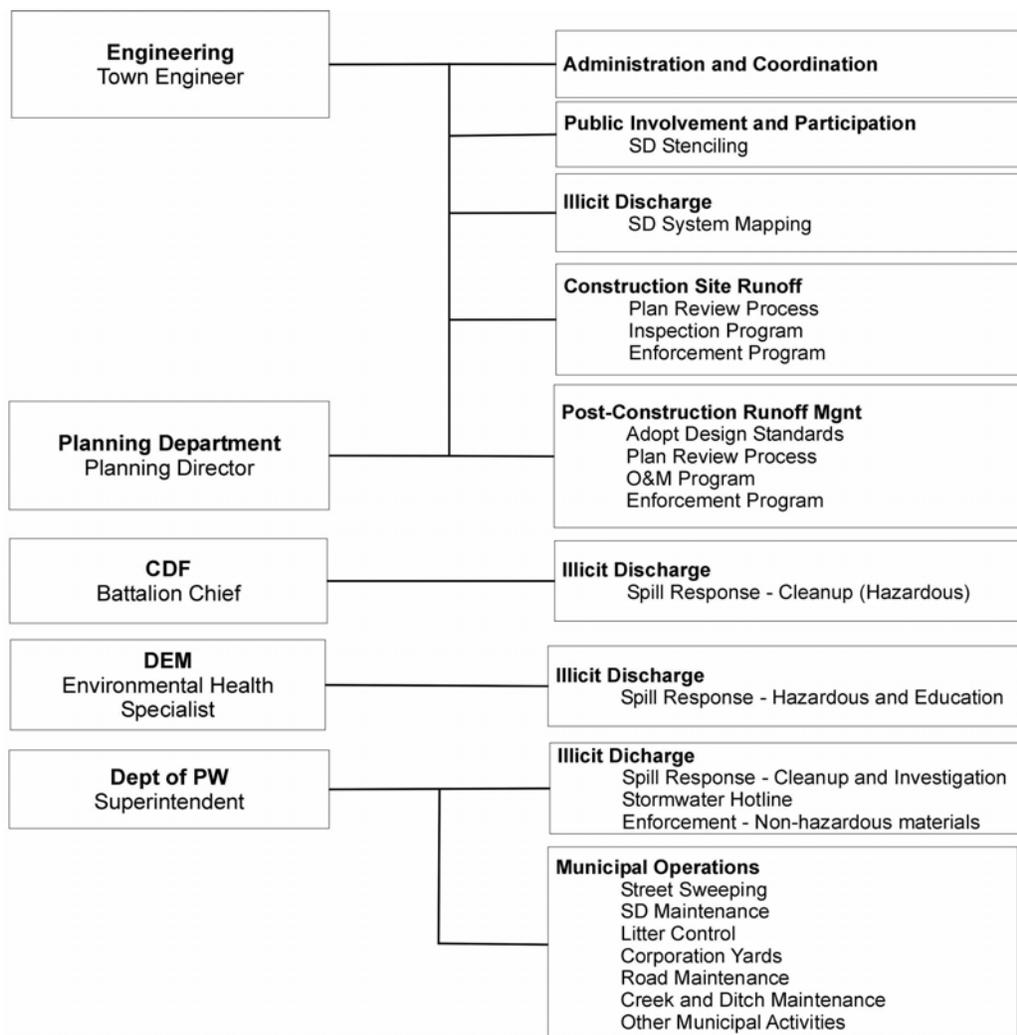
The City of Napa will use existing staff and existing programs as much as possible to implement the SWMP. Grants will be used to supplement the program when available. The City has a small stormwater system service fee established which can be used for storm drain maintenance and stormwater quality related activities.

2. Town of Yountville

Program Administration

The Engineering Division of the Planning Department will coordinate and oversee implementation of the Town of Yountville's Stormwater Management Program (SWMP).

Staffing and Staff Duties



Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Program Structure

Public Education and Outreach - The Town of Yountville will work with the County-wide Program to extend public education and outreach through the Town.

Public Involvement/ Participation - The Town Council will be briefed no less than once a year, at a public meeting, on the status of the SWPPP. The development of ordinances, policies, and best management practices will include public participation. The Town of Yountville will continue, with local volunteers, storm drain stenciling throughout the Town.

Illicit Discharge Detection and Elimination - The Fire Department (CDF) takes the lead in responding to hazardous spills with support from Public Works for cleanup when required. Both the Fire Department and Napa County Environmental Health conduct visits to commercial facilities and will include water quality education and inspection with their visits. The Town of Yountville currently maintains a storm drain system map.

Construction and Post-Construction Runoff Control and Management - Town Staff will develop procedures and ordinances to comply with Phase II requirements, even though few construction sites in excess of one acre are anticipated. The Town will look to the County-wide Program for additional training.

Pollution Prevention/Good Housekeeping Operations - The Public Works Department will implement the SWPPP related to building maintenance, street maintenance, storm drain maintenance, recycling, potable water distribution, park maintenance and recreation activities. The Fire Department will implement the SWPPP related to spill cleanup and Fire operations.

Local Ordinance

The Town of Yountville will adopt a stormwater ordinance during the 2003/2004 fiscal year. The ordinance will prohibit illicit discharges to the storm drain system, require construction sites to use erosion and sediment control measures and BMP's to control other potential pollutants, and require development projects to implement BMP's to reduce long-term nonstormwater runoff. An enforcement response plan will also be adopted to enforce the ordinance.

Financing

The Town of Yountville will use existing staff and programs as much as possible to implement the SWPPP. The Town has General Fund commitments allocated for staff time and also shares approximately 2% of the County-wide Program cost.

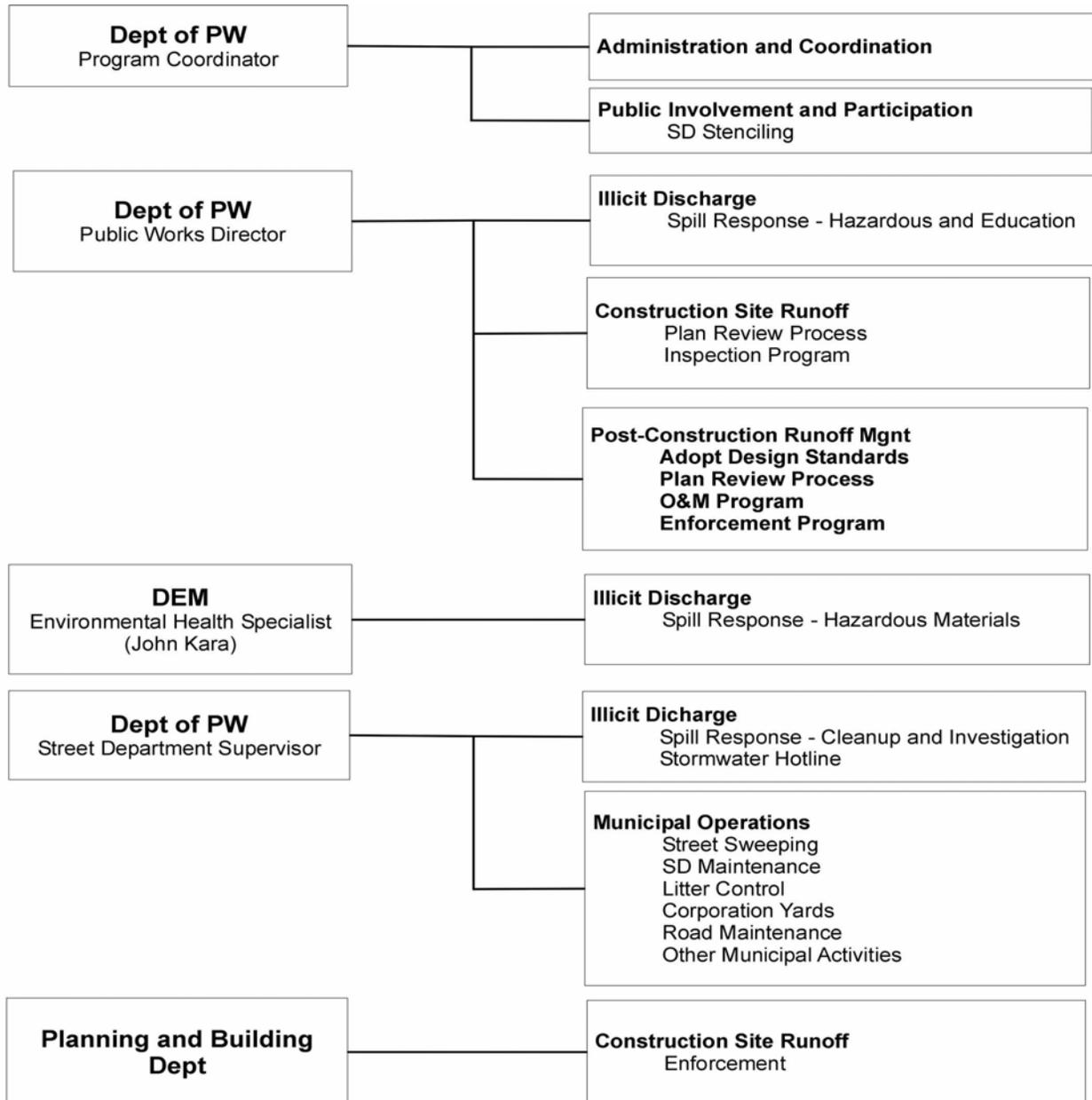
Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

3. City of St. Helena

Program Administration

The Department of Public Works will coordinate and oversee implementation of the City of St. Helena's Stormwater Management Program (SWMP).

Staffing and Staff Duties



Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Financing

The City of St. Helena will use existing staff and programs as much as possible to implement the SWPPP. The City has General Fund commitments allocated for staff time and also shares 5.2% of the County-wide Program cost.

Program Structure

Public Education and Outreach - The City of St. Helena will work with the County-wide Program to extend public education and outreach through the City.

Public Involvement/ Participation - The City Council will be briefed at least once a year, at a public meeting, on the status of the SWPPP. The development of ordinances, policies, and best management practices will include public participation. The City of St. Helena will continue, with local volunteers, storm drain stenciling throughout the city limits.

Illicit Discharge Detection and Elimination - The Fire Department takes the lead in responding to hazardous spills with support from PW for cleanup when required. Both the Fire Department and Napa County Environmental Health conduct visits to commercial facilities and will include water quality education and inspection with their visits. The City of St. Helena currently maintains a storm sewer system map.

Construction and Post-Construction Runoff Control and Management - The City of St. Helena is currently reorganizing its private development review process. City Staff will develop procedures and ordinances to comply with Phase II requirements, however, in a small city construction sites in excess of one acre are few. The City of St. Helena has considerable training in BMP's and will look to the County-wide Program for additional training.

Pollution Prevention/Good Housekeeping Operations - The PW Department will implement the SWPPP related to building maintenance, street maintenance, storm drain maintenance, recycling, and potable water production, park maintenance and recreation. The Fire Department will implement the SWPPP related to spill cleanup and Fire operations.

Local Ordinance

The City of St. Helena will adopt a stormwater ordinance during the 2003/2004 fiscal year. The ordinance will prohibit illicit discharges to the storm drain system, require construction sites to use erosion and sediment control measures and BMP's to control other potential pollutants, and require development projects to implement BMP's to reduce long-term nonstormwater runoff. An enforcement response plan will also be adopted to enforce the ordinance.

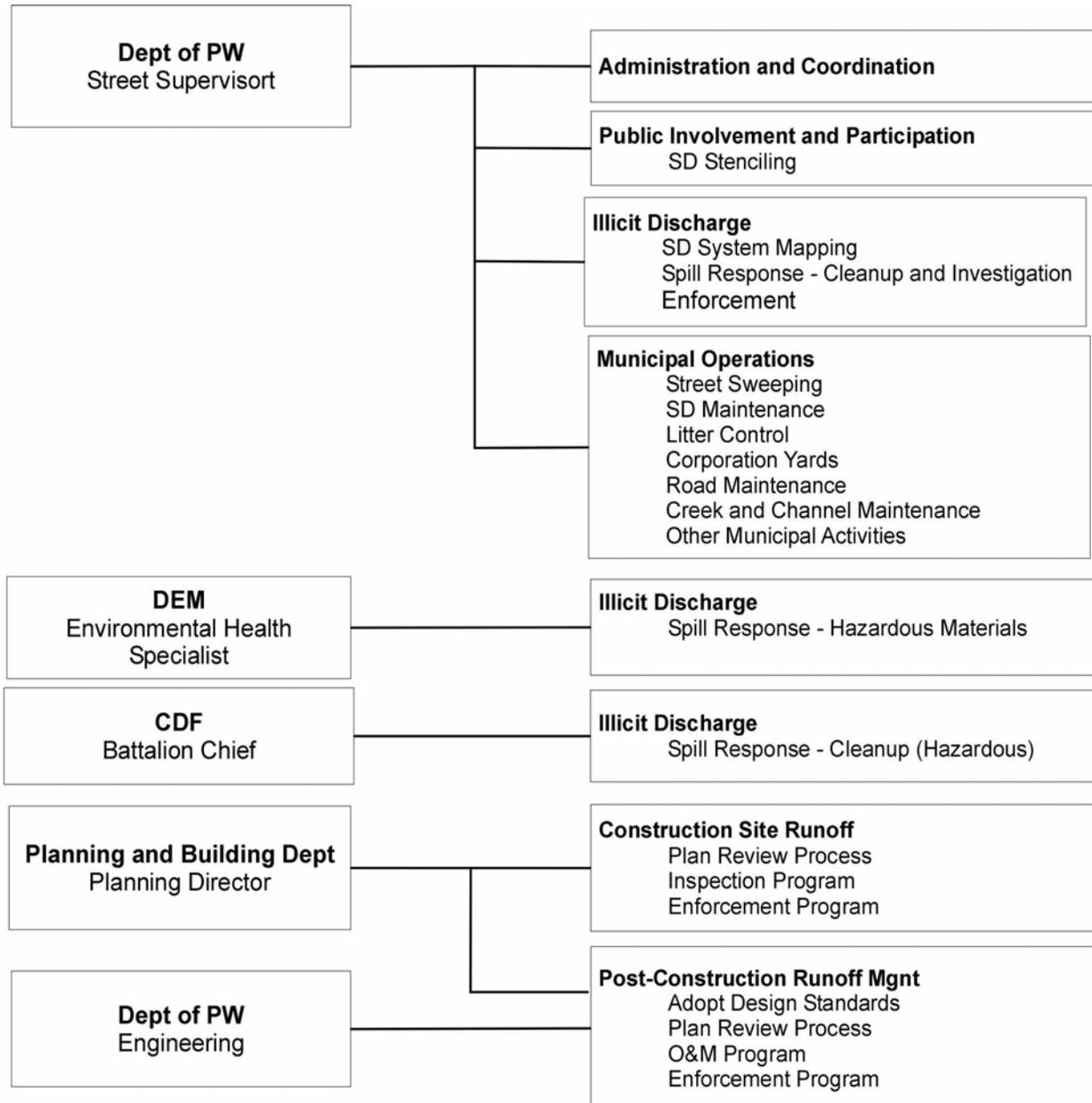
Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

4. City of Calistoga

Program Administration

The Department of Public Works will coordinate and oversee implementation of the City of Calistoga's Stormwater Management Program (SWMP).

Staffing and Staff Duties



Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Financing

The City of Calistoga will use existing staff and programs as much as possible to implement the SWMP. The City has General Fund commitments allocated for staff time and will also share approximately 3.9% of the County-wide Program cost.

Program Structure

Public Education and Outreach – The City of Calistoga will work with the County-wide Program to provide public education and outreach throughout the City.

Public Involvement/Participation – The City Council will be briefed at least once a year, at a public meeting, on the status of the SWMP. The Development of ordinances, policies, and best management practices will include public participation.

Illicit Discharge Detection and Elimination – The Fire Department takes the lead in responding to hazardous spills with support from the Police Dept. and PW for cleanup when required. Both the Fire Department and Napa County Environmental Management conduct visits to commercial facilities and will include water quality education and inspection with their visits, once staff has received training and information is available. Business inspections will be paid by the City of Calistoga through a JPA with the other Phase II programs. The City of Calistoga currently maintains a storm sewer system map.

Construction and Post-Construction Runoff Control and Management – City staff will develop procedures and ordinances to comply with Phase II requirements and modify the review process as needed. The City of Calistoga is committed to providing needed training for staff for plan review and field inspections.

Pollution Prevention/Good Housekeeping Operations – The PW Department will implement the SWPPP related to building maintenance, street maintenance, storm drain maintenance, recycling, and potable water production, park maintenance and recreation. The Fire Department will implement the SWPPP related to spill cleanup and Fire operations.

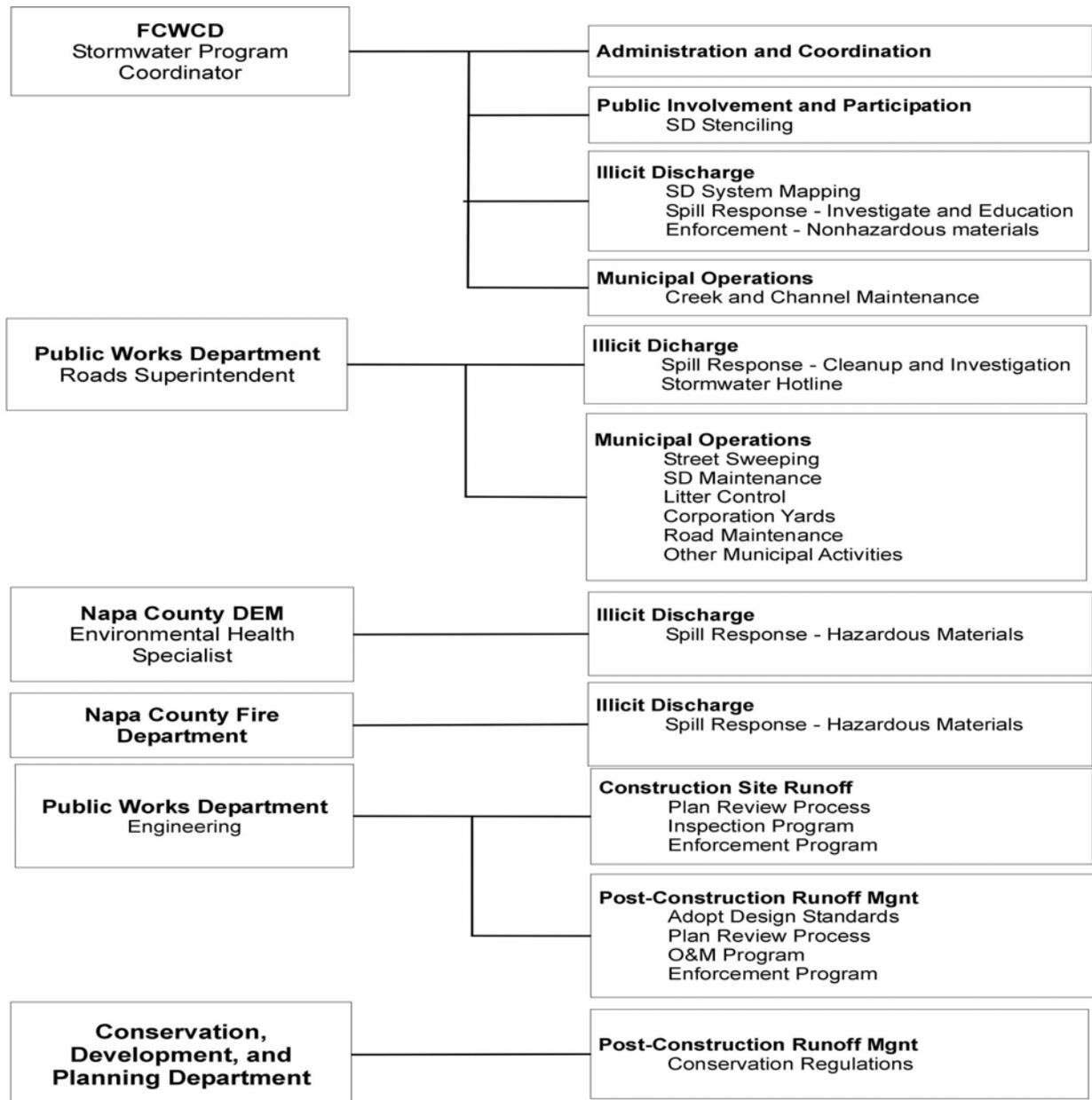
5. County of Napa

Program Administration

Local Program activities will be administered by the departments that implement them. County departments will be responsible for proposing budgets, keeping records, and monitoring activities to ensure that measurable goals are met. In addition, the NCFWCDC will be the lead department responsible for coordinating the Local Program and compiling information for the annual report.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Staffing and Staff Duties



Program Structure

Public Education and Outreach

Although the County-wide Program will implement the majority of the PEO activities, the DEM will use existing programs (e.g. recycling, household hazardous waste, etc.) to support Local Program efforts. DEM County staff will review and comment on educational materials and distribute them to the public.

Napa County Storm Water Management Program (NCSWMP)

Action Plan 2003 to 2007

Public Involvement/Participation

The County Board of Supervisors will be briefed at least once a year, at a public meeting, on the status of the SWMP. The development of ordinances, policies and BMP's will include public participation. The DEM will provide staff and support for publicizing and coordinating the Coast and Creek Cleanup Day. The NCFCWCD will also assist volunteers with stormdrain stenciling and the DEM will provide SD markers through an oil grant for Yountville, St. Helena, Calistoga and Napa County.

Illicit Discharge Detection and Elimination

The structure and policies for the Spill Response Program will be developed in the 2nd year of the permit term. At this stage it seems likely that the DPW Roads Division and Napa County Fire Department will take the lead on responding to, containing, and cleaning up spills and illegal dumping on County roads and road-side ditches. The stormwater hotline and enforcement response program will be implemented by either the DPW or DEM. The DPW field staff will also be trained to recognize, report, and respond to illicit discharges during their daily activities. The response will include providing educational materials to violators.

Construction Site Runoff Control

The departments responsible for implementing the Construction Site Runoff Control activities will be established in the 1st year of the permit term. The DPW and CDPD are likely candidates for these programs.

Post-Construction Runoff Management

The departments responsible for implementing the Post-Construction Runoff Management programs will be established in the 1st year of the permit term. The DPW and CDPD are likely candidates for these programs.

Municipal Operations

The DPW will implement the Street Sweeping, SD Maintenance, Litter Control, Corporation Yards, Road Maintenance, and other activities associated with the Municipal Operations element. The FCWCD will implement Creek and Ditch Maintenance activities.

Local Ordinance

Napa County will adopt a stormwater ordinance during the 2003/2004 fiscal year. The ordinance will prohibit illicit discharges to the storm drain system, require construction sites to use erosion and sediment control measures and BMP's to control other potential pollutants, and require development projects to implement BMP's to reduce long-term nonstormwater runoff. An enforcement response plan will also be adopted to enforce the ordinance.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Financing

The County of Napa will use existing staff and existing programs as much as possible to implement the SWMP. Grants will be used to supplement the program when available.

IV. GEOGRAPHIC LAND USE DESCRIPTION

Napa County encompasses 754 square miles of land and has a population of 124,279 with approximately 78% of its citizens living in the incorporated areas of American Canyon, Napa, Yountville, St. Helena, and Calistoga. There are two major watersheds in Napa County: the Napa River and Putah Creek Watersheds. Most of Napa County's citizens (perhaps 95% or more) live in the Napa River watershed. For this reason, most of the NCSWMP activities will be focused in the Napa River Watershed. The Napa River is 55 miles long and drains an area of 426 square miles. With the exception of 35 square miles in Solano County, the entire Napa River watershed is within the boundaries of Napa County. It is contained by Mt. St. Helena to the north, mountains to the west and east, and ultimately discharges to the San Pablo Bay to the south.

A map of the municipalities and many of the major waterbodies in the Napa River watershed is provided in the Appendix (Map 1). A complete map with labels of all waterbodies will be provided in the first Annual Report. Also included in the Appendix is a map of the sub-watershed boundaries (Map 2) and a map of zoned land uses (Map 3).

V. POLLUTANTS OF CONCERN

In May of 1999, the U.S. EPA approved the 1998 California 303(d) List and Total Maximum Daily Load (TMDL) Priority Schedule which listed the Napa River as a high priority impaired waterbody. Pollutants listed for impairment of the Napa River include:

- Sedimentation/Siltation, high priority, source-agriculture, construction/land development, urban runoff/storm sewers
- Nutrients, medium priority, source-agriculture
- Pathogens, medium priority, source-agriculture, urban runoff/storm sewers

While the goal of the SWMP is to reduce or eliminate all pollutants from stormwater runoff, these pollutants will be considered the top priority for pollution prevention activities in the County-wide and Local Programs.

VI. STORMWATER MANAGEMENT PROGRAM

SWMP - OVERVIEW

Implementation of the Stormwater Management Program (SWMP) is conducted through Six Program Elements: Public Education and Outreach, Public Involvement/Participation, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Runoff Management, and Municipal Operations.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

The Implementation Plan for each Program Element is contained in Tables 2-7, which provides a description of each Program Element's activities/BMPs, a timetable for implementation, quantifiable targets to evaluate performance and effectiveness, pollutants and target audience addressed, and the implementers for each activity. Measurable goals are provided for those activities/BMPs that are quantifiable and predictable. These quantifiable targets will be used to demonstrate NCSWMP's commitment to the Program and achievement of a reasonable level of implementation. Some activities are not easily quantifiable, and minimum performance standards may not be appropriate. Since Tables 2-7 provides an at-a-glance summary, the subsequent sections of this chapter provide more complete information for each Program Element.

Effectiveness evaluation is key to ensuring that the SWMP implements activities that are successful in changing behaviors and reducing stormwater pollution. Examples are provided at the end of each Program Element section that show the types of information and evaluations which may be used to measure the degree of Program Element implementation and the effectiveness of activities conducted.

Performance measures (P) are intended to describe the level of effort and involve enumeration of activities or the number or percentage of participation in a Program activity. Examples of performance measures include the number of public events attended, training sessions conducted, and number of construction sites inspected. This information is used by staff for purposes of planning and scheduling resources required to conduct the SWMP.

Effectiveness measures (E) provide assessments of the degree to which activities reduce pollutants to the maximum extent practicable (MEP). This information is used to focus and modify activities to maximize environmental benefits. Effectiveness measures include quantifying the effectiveness of a particular effort; for example, the percentage of construction sites in compliance with water quality laws. In some cases, effectiveness measures can be used to directly assess an activity's environmental benefit. For example, measuring the amount of pollutants removed by a street sweeping is a measure of pollutants that would have otherwise been discharged downstream to a local creek. At this time, few numeric effectiveness goals are listed in the measurable goals tables because baseline data is not available for many proposed activities. Numeric effectiveness goals will be added in future revisions to the SWMP when baseline data is available to set meaningful targets for program improvement.

The results of these effectiveness evaluations, including performance and effectiveness measures, will be provided in the Annual Progress Reports, submitted in September. The Annual Progress Reports will quantify the previous fiscal year's efforts (where possible), including BMPs and tasks implemented and the performance and effectiveness of activities. This annual evaluation will assess how well the SWMP goals were achieved and whether the measurable goals were accomplished. Activities and

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

specific BMPs may also be modified, added, or deleted as needed to meet Program Element goals.

PUBLIC EDUCATION AND OUTREACH ELEMENT

A. Element Overview

The Public Education and Outreach Element is the cornerstone of the Stormwater Management Program (SWMP). Whether dealing with the general public, local industry, developers, or public officials and departments, the goal of the Public Education and Outreach Element is to: (1) generate awareness of stormwater pollution prevention by educating people about the storm drain system and its relationship to the health of local waterways; and (2) change behavior patterns through education and encouragement of active participation in water pollution prevention. Table 2 provides an overview of the Public Education and Outreach Element and its activities.

Outreach activities can be grouped into seven categories:

- Characterize the general public
- Outreach to local government officials
- Stormwater website
- Community events
- Business outreach
- Outreach to general public
- Outreach to schools

Because municipal staff are highly visible in the community, department activities are a vital target for partnerships. The coordinated efforts of the Public Education and Outreach and Municipal Operations Elements will result in knowledgeable municipal staff who can implement appropriate control measures and serve as role models for water quality protection.

B. Strategy

Build and nurture relationships and partnerships with City and County departments, business community, neighborhood groups, environmental organizations, schools, and other interested groups to promote key messages and expand resources; provide educational tools for the next generation to understand stormwater issues and make informed decisions on how to best protect the environment; involve public officials in outreach efforts; and seek opportunities to effectively and efficiently share information and resources with other organizations to conduct regional outreach.

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

Activity	Description	Objective
Characterize the General Public	Characterize age, language spoken, and concentration for target audience.	Use census data to develop appropriate outreach materials for target audience.
Outreach to Local Officials	Outreach activities designed to educate public officials and agency managers about the impacts of stormwater pollution on local waterways.	Increase awareness, thereby encouraging behavioral change and acceptance of environmental stewardship.
Stormwater Website	Develop and maintain a stormwater website.	Provide information on the NCSWMP program, pollution prevention practices, and reporting illicit discharges.
Community Events	Staff a booth at community events with activities, surveys, and outreach materials on stormwater pollution issues.	Increase awareness, thereby encouraging behavioral change and acceptance of environmental stewardship.
Outreach to General Public	Provide information on pollution prevention practices, household hazardous waste disposal, and used oil recycling.	Promote the use of BMPs and proper disposal of household hazardous waste and used oil.
Outreach to Schools	Outreach activities designed to educate children about the impacts of stormwater pollution on local waterways.	Increase awareness, thereby encouraging behavioral change and acceptance of environmental stewardship.

C. Pollutants Controlled/Addressed

Sediment, nutrients, pathogens, metals, pesticides, vehicle waste products, organic carbon, oil and grease, and various non-stormwater discharges.

D. Activities/Best Management Practices

Public Surveys

Census data will be used to characterize the public in terms of age, language spoken, and concentration. The census data will be used to develop outreach and survey materials to reach a broad spectrum of the population. Surveys will initially be conducted at community events and a broader survey will be considered in the future. In addition to providing valuable information on the public's knowledge of stormwater pollution, the surveys will also be designed to be an effective educational tool.

Outreach to Local Officials

Present annual SWMP progress report to local government officials. The report will contain a list and description of the previous year's accomplishments and future goals.

Stormwater Web Site

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

A stormwater website will be developed and maintained to provide continuous and up-to-date information on the NCSWMP program, BMPs for residential and commercial activities, reporting illicit discharges, and laws regarding stormwater pollution.

Community Events

County and City staff will attend community events to encourage local participation in stormwater pollution prevention efforts. Outreach at these events will include activities and demonstrations, conducting surveys, and handing out educational materials to educate the public on how stormwater becomes contaminated with pollutants and harms aquatic life.

A booth will be developed and staffed at the Earth Day celebration at Connolly Ranch and the Symphony on the River to provide information on common pollutants in urban runoff, how they impact water quality, and the use of pollution prevention practices at home. A booth will also be developed and staffed at the Home and Garden Show to inform gardeners and landscapers on the impacts of pesticides and fertilizers on water quality if they are not used properly. Information will also be provided to encourage homeowners from dumping leaves and branches on stream banks.

Outreach to the General Public

The City of Napa will continue to provide bilingual (English and Spanish) decals with all new trashcans with information on the proper disposal of household hazardous wastes. The Solano- American Canyon will provide household hazardous waste collection for the public on a monthly basis throughout the year. Napa County DEM sponsors 2 to 4 household hazardous waste collection days per year in the Town of Yountville and City of Calistoga. Other outreach activities may include mailing brochures to residences on pollution prevention practices and promoting and participating in stewardship groups.

Stormwater Classroom Presentations

The Napa County RCD will develop a stormwater curriculum for grade 5. Visual aids and activities will be used to teach basic principles of aquatic ecology, the impacts of pollution on water quality, the sources of stormwater pollution, and what can be done to reduce it. By educating the children about the importance of water quality protection, a new generation will have the necessary tools to make informed decisions on how best to protect Napa County's waterways.

E. Effectiveness Evaluation

There are many methods of evaluating the effectiveness of the Public Education and Outreach Element. Some BMPs such as the Classroom Presentation Program and community events will include an evaluation survey or a report as part of the BMP. The success of other BMPs such as participation in community events and business outreach may be evaluated through public response or the amount of information that is distributed.

Napa County Storm Water Management Program (NCSWMP)

Action Plan 2003 to 2007

Performance and Effectiveness Measures

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information is used by staff for purposes of planning and scheduling resources required to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the maximum extent practicable (MEP) or eliminate nonstormwater discharges. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Progress Reports.

Characterize the Public

- Surveys conducted (P)
- Number of survey responses (P)
- Survey results (E)

Outreach to Local Officials

- Number of presentations (P)
- Response from local officials (E)

Stormwater Web Site

- Website developed (P)
- Number of visits to Web site (P)
- Feedback and interest from visitors (E)
- New features of Web site (P, E)

Community Events

- Number of events attended (P)
- Interest of public (E)
- Types of materials distributed (P, E)

Outreach to the General Public

- Trash can decals distributed (P)
- Types of materials distributed (P, E)
- Number of household hazardous waste events held (P)
- Amount of household hazardous waste collected at events (E)
- Number of households participating in collection events (E)

Stormwater Classroom Presentations

- Number of classroom presentations (P)
- Response from teachers and students (E)

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

PUBLIC INVOLVEMENT/PARTICIPATION ELEMENT

A. Element Overview

The success of NCSWMP will depend upon the support from elected officials, citizens, business groups, and municipal staff. To secure this support, NCSWMP will implement a public involvement/participation program that not only informs these audiences of the stormwater pollution concerns, but also asks them to participate in the SWMP development. The objective of the program is to: (1) Raise public awareness about stormwater runoff pollution through involvement in the SWMP and (2) involve the public in the development and implementation process to secure “buy in” and generate public support for water quality protection efforts.

The Public Involvement/Participation program can be grouped into five categories:

- Public Comment on the SWMP
- Storm Drain Stenciling
- Water Quality Monitoring
- Coast and Creek Cleanup Day
- Watershed Stewardship

B. Strategy

Volunteers are invaluable for creating support for the SWMP, spreading the word about stormwater runoff issues, creating a sense of community ownership and getting important tasks accomplished.

Activity	Description	Objective
Public Comments on the SWMP	Invite public comment on the SWMP.	Encourage buy-in from the public regarding the adoption and implementation of the SWMP.
Storm Drain Stenciling	Facilitate and promote storm drain stenciling program.	Increase awareness, thereby encouraging behavioral change and acceptance of environmental stewardship.
Water Quality Monitoring	Implement a volunteer water-quality monitoring program.	Increase awareness, thereby encouraging behavioral change and acceptance of environmental stewardship.
Coast and Creek Cleanup Day	Promote and facilitate creek cleanup events.	Increase awareness, thereby encouraging behavioral change and acceptance of environmental stewardship.
Watershed Stewardship	Promote and facilitate watershed stewardship groups.	Increase awareness, thereby encouraging behavioral change and acceptance of environmental stewardship.

C. Pollutants Controlled/Addressed

Sediment, nutrients, pathogens, metals, pesticides, vehicle waste products, organic carbon, oil and grease, and various non-stormwater discharges.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

D. Activities/Best Management Practices

Public Comment on the SWMP

Provide opportunities for businesses, industry, environmental and other public interest groups, and the general public to comment on and participate in the development and implementation of the SWMP.

Storm Drain Stenciling

Continue to distribute information on the program and solicit volunteers through schools, community neighborhood associations and clubs, environmental groups, and the Stormwater Website.

Water Quality Monitoring

Expand the Napa County RCD volunteer water-quality monitoring program to include additional streams and volunteers.

Coast and Creek Cleanup Day

Continue to promote and facilitate Coast and Creek Cleanup Day and other creek cleanup events.

Watershed Stewardship

Promote and facilitate watershed stewardship groups in Napa County. Conduct presentations on the importance of reducing nonpoint sources of pollution and the use of BMPs to protect water quality.

E. Effectiveness Evaluation

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information will be used by staff for purposes of planning and scheduling resources required to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the maximum extent practicable (MEP) or eliminate non-stormwater discharges. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Progress Reports.

Public Comment on the SWMP

- Number of public meetings held (P)
- Number of participants at public meetings (P)
- Feedback from the public (E)

Storm Drain Stenciling

- Number of volunteers/groups recruited (P)
- Number of storm drains stenciled (E)

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Water Quality Monitoring

- Number of sites monitored (P)
- Number of volunteers participating (P)
- Use of the data (E)

Coast and Creek Cleanup Day

- Number of events held (P)
- Number of participants (P)
- Amount of trash removed (E)

Watershed Stewardship

- Number of stewardship groups assisted (P)
- Number of presentations given to groups (P)
- Response and actions taken by stewardship groups (E)

ILLICIT DISCHARGE DETECTION AND ELIMINATION ELEMENT

A. Element Overview

The goal of the Illicit Discharge Detection and Elimination Element is to prevent the pouring, dumping, discharging, or spilling of pollutants into the municipal drainage system and a spill response plan to prevent pollutants from reaching waters of the State. Table 4 provides an overview of the Illicit Discharge Detection and Elimination Element and its activities. Achieving the goal of this element depends on the coordinated efforts of many municipal departments and other agencies, the Public Education and Outreach Element, maintenance staff, code enforcement officers, and fire departments to assist in preventing, identifying, and correcting illegal discharges. The public also plays an important role in identifying and reporting incidents of spills and illegal dumping.

B. Strategy

Coordinate with the Public Education and Outreach Element and other agencies to educate the public and business sectors about proper waste disposal alternatives. Develop guidance and enforcement policies for the application of City and County Stormwater Ordinances. Maintain adequate measures for reporting spills, spill response, investigation, and cleanup.

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

Activity	Description	Objective
Legal Authority	Develop and adopt an ordinance.	Prohibit illicit discharges to the storm drain system.
Spill Response Structure	Reporting and responding to spills and prohibited discharges to the storm drain system using efficient procedures.	Help the public and other agencies to report, contain, or clean up illegal discharges, and assist Program staff to identify, eliminate, and prevent prohibited discharges.
Storm Drain System Mapping	Develop a map of the storm drain system.	Use map to detect and/or track illicit discharges.
Business Outreach	Include stormwater inspection with routine inspections of businesses.	Educate the business community on the importance of reducing stormwater pollution and the use of BMPs to achieve compliance.

C. Pollutants Controlled/Addressed

Sediment, waste oil, paint, concrete, trash, leaves, grease, oil, and other non-stormwater discharges.

D. Activities/Best Management Practices

Legal Authority

Adopt an ordinance to prohibit non-stormwater discharges to the storm drain system and waters of the U.S. Develop and implement administrative enforcement procedures and guidance for violations of the Stormwater Ordinance. Periodically review and, as necessary, revise the Stormwater Ordinance.

Spill Response Structure

Establish a structure for receiving reports of illicit discharges from municipal staff and the public and develop a response plan for conducting elimination, clean-up, and follow-up of illicit discharges. Train agency staff to recognize illicit discharges and the procedures for responding to and cleaning up these discharges. Develop a road kit with BMP brochures for activities that commonly contribute pollution to stormwater runoff (e.g. landscaping, washing vehicles, disposal of oil and hazardous waste, construction site runoff control). Appropriate brochures will be handed out to violators to educate them on the proper use of BMPs to reduce stormwater pollution.

Storm Drain System Mapping

Develop map of the storm drain system to facilitate the illicit discharge detection and elimination program.

Business Outreach

Outreach to businesses will be conducted through routine inspections and distributing newsletters. During the first permit term, stormwater inspections will be included with routine inspections of restaurants and business that handle hazardous materials. These inspections will include an explanation of current stormwater laws, distributing appropriate educational materials on the use of BMPs to reduce stormwater pollution,

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

and advising businesses of possible solutions to achieve compliance if current practices do not achieve MEP. Local Programs will adopt a Stormwater Ordinance and enforcement procedures in the first year of the permit term to establish the authority to take necessary actions if education and outreach are unsuccessful.

E. Effectiveness Evaluation

The effectiveness of the Illegal Discharge Element is dependent on reductions in the number of discharge incidents and the quantity of pollutants discharged to the drainage system. Efforts to measure effectiveness through quantification methods (e.g., “number of discharge incidents” or “pounds of pollutants”) are not valid because they actually measure the effectiveness of identification and reporting programs that are continuing to develop and improve. Other quantification efforts such as the gallons of waste oil collected might indicate a quantity of pollutants that was potentially kept out of the storm drains, but the annual increase or decrease might also be attributed to better record keeping or the availability of other collection or disposal alternatives. Assessments will include feedback from drainage maintenance inspectors, other municipal staff, and public comments.

Performance and Effectiveness Measures

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information is used by staff for purposes of planning and scheduling resources required to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the maximum extent practicable (MEP) or eliminate non-stormwater discharges. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Progress Reports.

Legal Authority

- Adoption of a Stormwater Ordinance (P)
- Evaluation of the Stormwater Ordinance (E)
- Support for enforcement activities (P, E)
- Number of incidents for which penalties are assessed and successfully collected (P, E)
- Number of illegal discharges eliminated (P, E)

Spill Response Structure

- Number of illegal discharges reported via the public (P, E)
- Number of illegal discharges reported via municipal staff (P, E)
- Number of spills responded to, contained, or cleaned up by municipal staff (P, E)
- Feedback from staff and the public (E)

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

- Number and magnitude of spills that are prevented from reaching area creeks or rivers (E)
- Number or percentage of spills in which the responsible party is identified (P, E)
- Development and implementation of enforcement procedures and guidance (P, E)
- Development of database for reported illegal discharges (P)
- Annual analysis of data for types, frequencies, and locations of illicit discharges (P, E)
- Number of training sessions held and participation (P)
- Number of illegal discharges identified by municipal staff (P, E)
- Number and types of outreach materials distributed to violators (P)
- Number of repeat offenses by violators (E)

Storm Drain System Mapping

- Percentage of storm drain system mapped (P)
- Use of map to detect and eliminate illicit discharges (E)

Business Outreach

- Number of businesses inspected (P)
- Number of outreach materials distributed (P)
- Number of SW BMP's discussed in annual newsletters sent to businesses (P)
- Business compliance with stormwater regulations (E)
- Feedback from businesses on outreach materials (E)

CONSTRUCTION SITE RUNOFF CONTROL ELEMENT

A. Element Overview

The goal of the Construction Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable (MEP) by: (1) requiring construction sites to reduce sediment in site runoff; and (2) requiring construction sites to reduce other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management. Excessive erosion and sediment transport can harm creek habitat through both scour and smothering of spawning areas. The Construction Element includes adopting and enforcing an ordinance, developing and maintaining standards for erosion and sediment control (ESC), and conducting outreach activities and site inspections. Table 5 provides an overview of the Construction Element and its activities.

Development reviews and approvals include reviewing California Environmental Quality Act (CEQA) documents and applying standard conditions during the entitlement process. Appropriate standards will be based on implementing best management practices (BMPs) to reduce stormwater runoff pollution to the MEP.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

The Construction Element will assist in educating the development community and municipal project managers about the State General Permit for Discharges of Stormwater Associated With Construction Activities (State Construction General Permit) requirements. Applicable projects must provide proof to the municipalities that a Notice of Intent (NOI) has been submitted to the State Water Resources Control Board (State Board) and a Stormwater Pollution Prevention Plan (SWPPP) has been prepared. This outreach is conducted as part of a slate of outreach activities that also address Local Program requirements for construction projects. Resources will also be focused on ensuring that all municipal projects have the tools and procedures in place to effectively comply with Local and State requirements. This may include items such as the development of activity-specific BMPs, fact sheets, or ESC plan checklists for municipal projects.

B. Strategy

Develop and adopt an ordinance; provide outreach and guidance to the development community and municipal staff on erosion and sediment control requirements; ensure that plan review and approval procedures, standards, and field requirements are clear and effective; provide inspections and enforcement actions; and evaluate and incorporate new technology and alternative control measures to require construction sites to reduce sediment in site runoff and other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management.

Activity	Description	Objective
Legal Authority	Review and revise City and County ordinances for acceptable erosion, sediment, and pollution controls.	Ensure that current regulations and new technology are incorporated and can be effectively implemented.
Outreach and Education	Informal and formal outreach to the development community and municipal staff about current regulations; changes in regulations, procedures, or requirements; and new technology, practices, and control measures.	Educate and help the development community and municipal staff to comply with local and state requirements.
Plan Review Process	Evaluate and revise erosion, sediment, and pollution control standards and specifications, as necessary.	Ensure that standards are based on the latest technology and practices.
Inspection	Enforcement of ordinances, standards, and site inspections.	Enforce ordinances and standards relating to erosion, sediment, and pollution control.

C. Pollutants Controlled/Addressed

Sediment, nutrients, pathogens, paints, concrete, stucco, litter, and other non-stormwater discharges.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

D. Activities/Best Management Practices

Legal Authority

Develop and adopt an ordinance to reduce stormwater runoff pollution from construction sites greater than 1 acre. Evaluate ordinance to ensure that it provides the most effective prevention of construction site pollutants.

Outreach and Education

Educate and provide guidance to the construction and development communities on local and state requirements and new technology and practices. Outreach may take the form of fact sheets on regulations, workshops, pre-construction meetings, boilerplate ESC plans, brochures for specific practices (e.g., landscapers), etc.

Educate and provide guidance to municipal staff (e.g., inspectors, project managers, development review staff) on local and state requirements and new technology and practices. Outreach may take the form of fact sheets on regulations, training sessions, staff meetings, pre-construction meetings, boilerplate ESC plans, and brochures for specific practices (e.g., landscapers), etc.

Plan Review Process

Evaluate and revise erosion, sediment, and pollution control standards and specifications, as necessary. These standards will be updated based on the latest technology and practices.

Ensure projects adequately address erosion, sediment, and pollution control requirements through the development approval process by requiring projects greater than one acre to have an adequate ESC plan and provide proof of coverage under the State Construction General Permit.

Ensure projects adequately address requirements during the CEQA process by reviewing and commenting on items such as Environmental Impact Reports and mitigation monitoring plans, and conditioning projects to comply with Local and State requirements during the entitlement process.

Inspection Program

Ensure that construction sites adequately address erosion, sediment, and pollution control. Inspection and enforcement staff will ensure that control measures and practices are properly implemented, installed, maintained and effective during the construction of a project, beginning with rough grading and ending with home building.

E. Effectiveness Evaluation

The effectiveness of the Construction Element will be based on the quality of the ESC plans submitted, the level of contractor compliance with the plans, and the adequacy of public agency procedures for plan check and inspection. In addition to regular audits of selected plans and construction sites, literature reviews and special studies on the

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

effectiveness and maintenance requirements of control measures will be conducted as needed.

Performance and Effectiveness Measures

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information will be used by staff for purposes of planning and scheduling resources required to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the MEP or eliminate non-stormwater discharges. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Progress Reports.

Legal Authority

- Ordinance adoption (P)
- Ordinance evaluations (E)

Outreach and Education

- Type and number of outreach materials distributed (P)
- Number of workshops and workshop attendance (P)
- Workshop evaluations (E)
- Feedback from City and County staff (E)

Plan Review Process

- Revisions to the manual of standards (P)
- Number of manuals distributed (P)
- Number of plans approved (P)
- Number of projects conditioned (P)
- Percentage of projects over 1 acre with NOIs and SWPPPs (E)

Inspection Program

- Number of sites inspected (P)
- Number of sites inspected with NOIs and SWPPPs (P)
- Percentage of active sites inspected and percent in compliance (E)

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

POST-CONSTRUCTION RUNOFF MANAGEMENT ELEMENT

A. Element Overview

The goal of the Post-construction Element is to protect local creeks and rivers by reducing the discharge of stormwater pollutants that can result from new developments and redevelopments to the maximum extent practicable (MEP). Generally, these developments may result in an increase in the total impervious surface area, with an attendant increase in the volume of stormwater runoff flows and the overall load of pollutants discharged into local creeks and rivers. These effects of new development and redevelopment over one acre will be mitigated with the installation and maintenance of structural and/or nonstructural BMPs. Table 6 provides an overview of the Post-Construction Element and its activities.

The Post-construction Runoff Control Element establishes an ordinance, review and approval procedures, and design standards to ensure that new development and redevelopment projects over one acre incorporate BMPs to reduce pollutants in stormwater runoff. This Program Element also provides outreach to ensure that these procedures are understood and followed by planners and developers alike. Furthermore, procedures will be developed to ensure the long-term maintenance of controls.

B. Strategy

Adopt an ordinance to require the implementation of structural and/or nonstructural controls to reduce stormwater pollution; provide outreach and guidance to the development community and municipal staff on regional and onsite source and treatment control measure requirements for new development and redevelopment projects; ensure that plan review and approval procedures, standards, and maintenance requirements are clear and effective; and incorporate new technology and alternative control measures to prevent or mitigate the increase in the overall pollutant load that can result from new developments.

Activity	Description	Objective
Legal Authority	Develop and adopt an ordinance.	Require long-term runoff management for development and redevelopment over 1 acre.
Plan Review Process	Review and revision of manuals and standards, as needed, to provide effective post-construction control measures.	Ensure that new regulations and technology are incorporated and can be effectively implemented.
BMP Maintenance	Development and implementation of maintenance protocols; and updating and maintenance of record keeping and data management procedures.	Ensure adequate long term operation and maintenance of BMPs.
Outreach	Hold public workshops; develop brochures, and other outreach materials.	Help the community understand the requirements and provide guidance.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

C. Pollutants Controlled/Addressed

Sediment, nutrients, pathogens, pesticides, vehicle waste products, metals, organic carbon, oil and grease.

D. Activities/Best Management Practices

Legal Authority

NCSWMP partners will develop and adopt an ordinance requiring the implementation of structural and/or nonstructural runoff controls for new developments and redevelopments over one acre.

Plan Review Process

Evaluate and revise development standards, as necessary. Development standards include planning practices, site design, regional control measures (e.g., wet and dry detention basins), source control measures, on-site treatment control measures, and maintenance requirements. These standards will be updated based on new technical information, new innovative technologies, and control measure effectiveness.

Ensure that projects adequately address requirements during the California Environmental Quality Act (CEQA) process by reviewing and commenting on items such as Environmental Impact Reports and mitigation monitoring plans. Condition projects to incorporate minimum design standards and comply with post-construction requirements during the entitlement process. Utilize the development approval process (i.e., plan check) or municipal procedures (i.e., City project managers) to ensure projects incorporate regional control measures that meet design standards.

BMP Maintenance

Develop and implement maintenance protocols for regional and on-site control measures; develop an inspection program to ensure control measures are maintained. Maintenance protocols include requiring maintenance agreements for select on-site control measures installed on private property. Update and maintain record keeping and data management procedures for tracking regional control measures and their maintenance.

Outreach

Conduct outreach to the development community to provide information and serve as a technical resource on policies, requirements, and new technology and practices. This may be accomplished through workshops, presentations at professional organizations, newsletters, or user-friendly fact sheets.

E. Effectiveness Evaluation

The effectiveness of the New Development Element will be based on whether on-site and regional stormwater quality control measures have been designed, constructed, and maintained according to the developed criteria. Maintenance records, inspection

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

records, and visual monitoring will provide verification that the control measures are working. Literature reviews will be used to develop and revise selection requirements, design criteria, and maintenance protocols.

Performance and Effectiveness Measures

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information will be used by staff for purposes of planning and scheduling resources required to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the MEP or eliminate non-stormwater discharges. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Progress Reports.

Legal Authority

- Ordinance adopted (P)
- Ordinance evaluations (E)

Plan Review Process

- Revisions to the manual of standards (P)
- Number of manuals distributed (P)
- Number of hits to Web site (P)
- Number of projects constructed or approved (P)
- Number of CEQA documents reviewed (P)
- Number of projects conditioned (Use a table and map to inventory control measures.) (E)

BMP Maintenance

- Number of BMP fact sheets and maintenance and operating procedures developed. (P)
- Number of inspections and maintenance activities performed (Prepare or collect maintenance and inspection reports. (P)
- Percentage of BMPs adequately maintained. (E)

Outreach

- Type and number of outreach materials (P)
- Number of workshops and workshop attendance (P)
- Workshop evaluations (E)
- Feedback from municipal staff (E)

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

MUNICIPAL OPERATIONS ELEMENT

A. Element Overview

NCSWMP partners conduct numerous municipal operational and maintenance activities, some of which have the potential to result in discharges of pollutants in runoff or be sources of non-stormwater discharges. The goal of the Municipal Operations Element is to implement BMPs to reduce these discharges of pollutants in runoff and control non-stormwater discharges to the MEP. Table 7 provides an overview of the Municipal Operations Element and its activities. The Municipal Operations Element evaluates activities to identify those that could be significant sources of pollutants in runoff; develops appropriate measures to reduce the discharge of pollutants from these sources to the maximum extent practicable (MEP); and identifies and controls discharges of non-stormwater from facilities owned or operated by the municipalities.

This Program Element also conducts operation and maintenance activities that remove pollutants. Several existing routine, conventional municipal activities provide the additional benefits of pollutant removal. Municipal operation and maintenance activities for sump stations and detention basins result in the collection and removal of significant quantities of pollutants from stormwater runoff. Street sweeping programs also removes sediment and associated pollutants from roadways and gutters that would otherwise enter the storm drains.

An important proposed activity includes efforts to identify and improve municipal operations that are potentially significant sources of pollutants. Outreach and training are essential to ensure that municipal employees are aware of and able to implement the Municipal Operations Element. Surveys and facility inspections will be conducted. Areas of focus include: (1) street sweeping; (2) storm drain maintenance; (3) stormwater pump stations; (4) litter control; (5) corporation yard SWPPP implementation; (6) road maintenance; (7) creek and ditch maintenance; (8) parks, recreation, and landscape maintenance; and (9) other activities. Development of fact sheets, performance standards, and procedure manuals for common municipal activities will help ensure that pollutant prevention practices are followed. Street sweeping and other activities will be evaluated to determine effectiveness, and alternatives will be considered to improve pollutant removal.

B. Strategy

Conduct surveys and facility inspections to identify municipal activities that have the potential to pollute urban runoff. Develop appropriate training, procedures, and/or structural control measures for the elimination or reduction of pollutants discharged from source activities. Maintain awareness level of municipal staff and administrators regarding source control measures and stormwater pollution prevention through training and outreach materials. Continue to conduct operation and maintenance activities that accomplish pollutant removal. Incorporate water quality features at new municipal facilities and retrofit existing facilities when feasible.

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

Activity	Description	Objective
Street Sweeping	Perform routine street sweeping activities.	Remove litter and sediment from streets.
Storm Drain Maintenance	Perform routine maintenance of storm drain facilities.	Remove litter and debris from storm drains.
Stormwater Pump Stations	Perform routine maintenance of stormwater pump stations.	Remove litter and debris from pump stations.
Litter Control	Provide litter receptacles and collection in public locations.	Ensure that public areas are litter-free.
Corporation Yards	Prepare a SWPPP and implement BMPs and good housekeeping practices at corporation yards.	Increase staff awareness of the need to protect stormwater quality and knowledge of appropriate preventative procedures and control measures.
Road Maintenance	Incorporate BMPs into operating procedures and train staff.	Increase staff awareness of the need to protect stormwater quality and knowledge of appropriate preventative procedures and control measures.
Creek and Ditch Maintenance	Incorporate BMPs into operating procedures and train staff.	Increase staff awareness of the need to protect stormwater quality and knowledge of appropriate preventative procedures and control measures.
Parks, Recreation, and Landscape Maintenance	Incorporate BMPs into operating procedures and train staff.	Increase staff awareness of the need to protect stormwater quality and knowledge of appropriate preventative procedures and control measures.
Other Activities	Prioritize other activities and develop appropriate BMP and training programs.	Increase staff awareness of the need to protect stormwater quality and knowledge of appropriate preventative procedures and control measures.

C. Pollutants Controlled/Addressed

Sediment, nutrients, pathogens, pesticides, vehicle waste products, metals, organic carbon, oil and grease, paints, concrete, fuels, automotive fluids, litter, other non-stormwater discharges.

D. Activities/Best Management Practices

Street Sweeping

Continue street sweeping programs and evaluate alternative equipment and sweeping schedules to optimize pollutant removal.

Storm Drain Facilities

Continue maintenance activities that remove accumulated sediment and trash from storm drainage facilities.

Napa County Storm Water Management Program (NCSWMP)

Action Plan 2003 to 2007

Stormwater Pump Stations

Develop maintenance standards and train staff on the proper maintenance and disposal of materials from pump stations.

Litter Control

Continue to provide trashcans and garbage pickup in public areas prone to littering.

Corporation Yards

Prepare a SWPPP that accomplishes the following objectives: (1) identify and characterize non-stormwater discharges and (2) describe and implement control measures to eliminate or reduce pollutants to the MEP.

Road Maintenance

Develop maintenance standards for road maintenance and construction, train appropriate staff on the use of BMPs, and hold a public workshop on road maintenance practices that protect water quality.

Creek and Ditch Maintenance

Develop maintenance standards for creek and ditch maintenance and train staff and contractors on the use of BMPs.

Parks, Recreation, and Landscape Maintenance

Assess the condition of parks and related facilities regarding erosion, litter, pesticide and fertilizer applications, and other sources of stormwater pollution and develop maintenance standards and a training program for employees.

Other Activities

Prioritize other municipal activities, develop and adopt BMPs, and train staff on the use of pollution prevention techniques.

E. Effectiveness Evaluation

The effectiveness of the Municipal Operations Element is dependent on adequate training, resources, and staff to ensure that municipal operations and facilities are reducing stormwater pollution and controlling non-stormwater discharges. Assessments will include evaluation of inspections, site visits, improved procedures for managing target pollutants, review of feedback from municipal staff, and public comments. Public comments may be useful indicators of the consistency and fairness of stormwater requirements being established for businesses and residents. Quantitative measurements of effectiveness may include evaluation of sediment removed from sump maintenance and street sweeping as well as estimated reductions in pollutant loadings.

Performance and Effectiveness Measures

The following are examples of the types of performance measures (P) and effectiveness measures (E) that may be used to measure the degree of Program Element implementation and activity effectiveness. Performance measures involve enumeration of activities or the number or percentage of participation in a Program activity. This information is used by staff for purposes of planning and scheduling resources required

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

to conduct the Program. Effectiveness measures provide assessments of the degree to which activities reduce pollutants to the MEP or eliminate non-stormwater discharges. This information is used to focus and modify activities to maximize environmental benefits. The results of the performance and effectiveness measures will be provided in the Annual Progress Reports.

Street Sweeping

- Frequency and miles swept (P)
- Amount of pollutants removed from streets (E)

Storm Drain Facilities

- Number and maintenance frequency of storm drain facilities (P)
- Amount of pollutants removed from storm drain facilities (E)

Stormwater Pump Stations

- Number and maintenance frequency of stormwater pump station facilities (P)
- Amount of pollutants removed from stormwater pump stations (E)

Litter Control

- Number of cans routinely emptied (P)
- Amount of material removed (E)
- Frequency of overfilled trashcans (E)

Corporation Yards

- SWPPP prepared and implemented (P)
- Number of site inspections to ensure that appropriate control measures are implemented (P)
- Compliance with control measures (E)
- Feedback from City and County staff on SWPPPs and BMPs (E)
- Number and effectiveness of post-construction control measures for new municipal facilities (P, E)

Road Maintenance

- Number of tailgate meetings and training sessions (P)
- Feedback from tailgate meetings and training sessions (E)
- Number of fact sheets, brochures, procedure manuals, and other outreach material to describe BMPs for municipal activities (P, E)

Creek and Ditch Maintenance

- Number of tailgate meetings and training sessions (P)
- Feedback from tailgate meetings and training sessions (E)
- Number of fact sheets, brochures, procedure manuals, and other outreach material to describe BMPs for municipal activities (P, E)

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

Parks, Recreation, and Landscape Maintenance

- Number of tailgate meetings and training sessions (P)
- Feedback from tailgate meetings and training sessions (E)
- Number of fact sheets, brochures, procedure manuals, and other outreach material to describe BMPs for municipal activities (P, E)
- Reduction in activities and use of products that contribute target pollutants to runoff; estimated load reduction (E)

Other Activities

- Number of procedures developed and implemented to control use of target pollutants in municipal activities (P, E)

VII. GLOSSARY

1. **Best Management Practices (BMPs)** – Best management practices means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. (40 CFR § 122.2)
2. **Maximum Extent Practicable (MEP)** – A technology-based standard established by congress in CWA §402(p)(3)(B)(iii) that municipal dischargers of stormwater must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve. MEP is generally the result of emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with treatment methods where appropriate serving as additional lines of defense. The MEP approach is an ever evolving, flexible and advancing concept, which considers technical and economic feasibility.
3. **Measurable Goal** – Defined tasks or accomplishments that are associated with implementing best management practices.
4. **Minimum Control Measure** – A stormwater program area that must be addressed by all regulated MS4s. The following six minimum control measures are required to be addressed by the regulated Small MS4s: Public Education and Outreach, Public Involvement/Participation, Illicit discharge Detection and Elimination, Construction Site Runoff Control, Post-Construction Runoff Management, Municipal Operations.
5. **New Development** – land disturbing activities, structural development, including construction or installation of a building or structure, creation of impervious surfaces, and land subdivision.
6. **Non-Structural BMP** – The use of planning procedures, riparian zone preservation, open space, etc. to ensure the long-term protection of water quality.
7. **Outfall** – A point source at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

conveyances connecting two separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States. (40 CFR § 122.26(b)(9))

8. **Point Source** – Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. (40 CFR § 122.2)
9. **Regulated Small MS4** – A small MS4 that is required to be permitted for discharging stormwater through its MS4 to waters of the U.S. and is designed either automatically by the U.S. EPA because it is located within an urbanized area, or designated by the SWRCB or RWQCB in accordance with the designation criteria listed at Finding 11 of the General Permit.
10. **Redevelopment** - Redevelopment means, on an already developed site, the creation or addition of at least 5,000 square feet of impervious surface. Redevelopment includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to these SUSMP's, the Design Standards apply only to the addition, and not to the entire development.
11. **Restaurant** – A stand-alone facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption.
12. **Small Municipal Separate Storm Sewer System (Small MS4)** – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are:
 - i. Owned or operated by the United States, a State, city, town, boroughs, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district, or drainage district, or similar entity, or an Native American tribe or an authorized Native American tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
 - ii. Not defined as “large” or “medium” municipal separate storm sewer systems.

Napa County Storm Water Management Program (NCSWMP) Action Plan 2003 to 2007

- iii. This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings. (40 CFR §122.26(b)(16))
- 13. **Source Control BMP** – any schedules of activities, prohibitions of practices, maintenance procedures, managerial practices or operational practices that aim to prevent stormwater pollution by reducing the potential for contamination at the source of pollution.
- 14. **Structural BMP** – Any structural facility designed and constructed to mitigate the adverse impacts of stormwater and urban runoff pollution (e.g. detention, infiltration, structural enclosure, etc.). The category may include both treatment Control BMPs and Source Control BMPs.
- 15. **Treatment** – The application of engineered systems that use physical, chemical, or biological processes to remove pollutants. Such processes include, but are not limited to, filtration, gravity settling, media adsorption, biodegradation, biological uptake, chemical oxidation, and UV radiation.
- 16. **Treatment Control BMP** – Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media adsorption, or any other physical, biological, or chemical process.

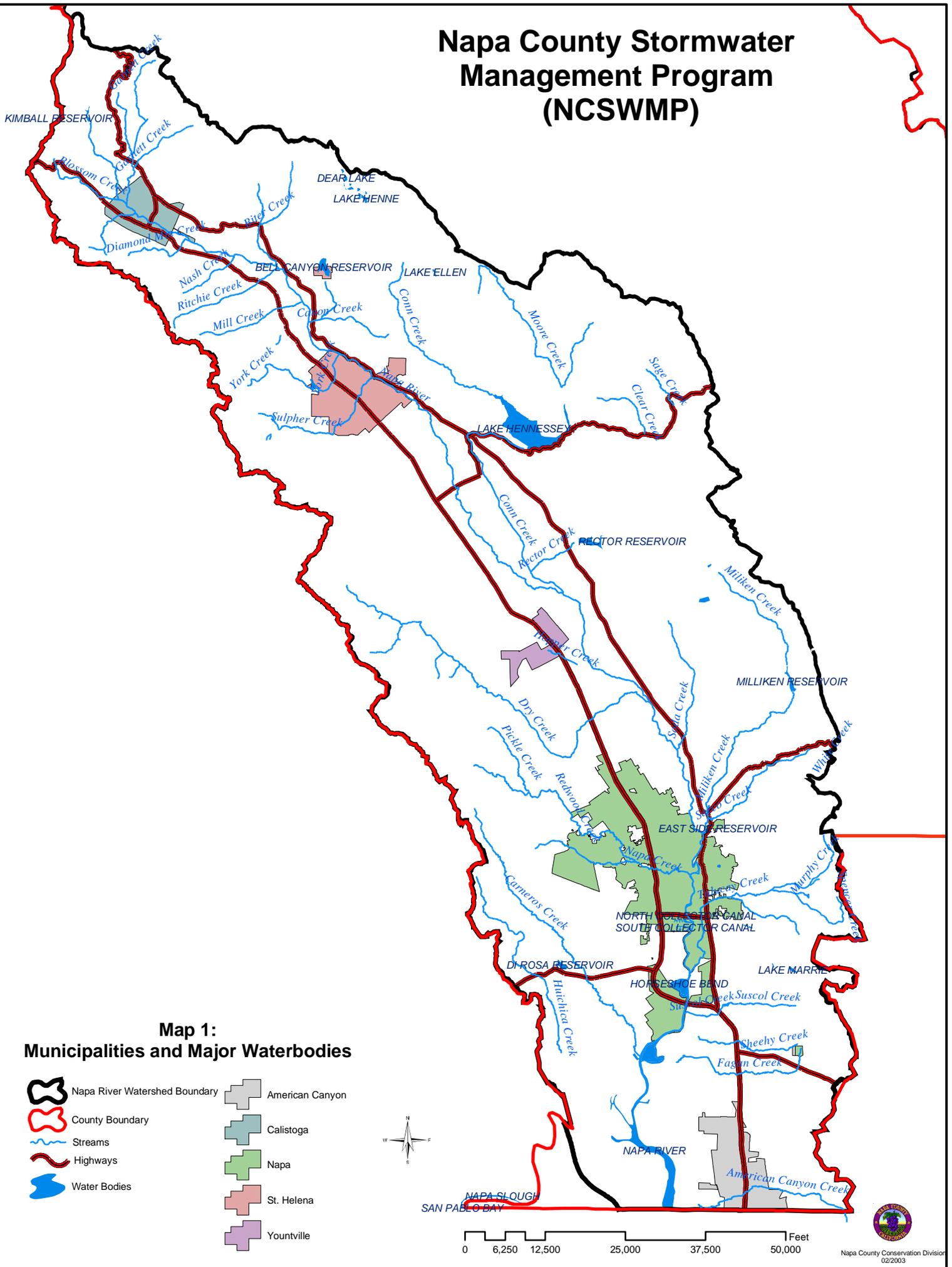
VIII. ABBREVIATIONS

- 1. **ASC** – Agency Staff Committee
- 2. **BASMAA** – Bay Area Stormwater Management Agencies Association
- 3. **BMP** – Best Management Practice
- 4. **CCC** – California Conservation Corps
- 5. **CDPD** – Napa County Conservation, Development, and Planning Department
- 6. **CEQA** – California Environmental Quality Act
- 7. **CWA** – Clean Water Act
- 8. **DEM** – Department of Environmental Management
- 9. **DFG** – Department of Fish and Game
- 10. **EIR** – Environmental Impact Report
- 11. **ESC** – Erosion and Sediment Control
- 12. **FONR** – Friends of the Napa River
- 13. **MEP** – Maximum Extent Practicable
- 14. **MS4** - Small Municipal Separate Storm Sewer System
- 15. **NCFCWCD** – Napa County Flood Control and Water Conservation District
- 16. **NCSWMP** – Napa County Stormwater Management Program
- 17. **NOI** – Notice of Intent
- 18. **NPDES** – National Pollutant Discharge Elimination System
- 19. **NRCS** – National Resource Conservation Service
- 20. **PW** – Public Works
- 21. **RCD** – Resource Conservation District
- 22. **SFRWQCB** – San Francisco Regional Water Quality Control Board

**Napa County Storm Water Management Program (NCSWMP)
Action Plan 2003 to 2007**

- 23. **SWMP** – Stormwater Management Program
- 24. **SWPPP** – Stormwater Pollution Prevention Plan
- 25. **SWRCB** – State Water Resources Control Board
- 26. **TMDL** – Total Maximum Daily Load

Napa County Stormwater Management Program (NCSWMP)



**Map 1:
Municipalities and Major Waterbodies**

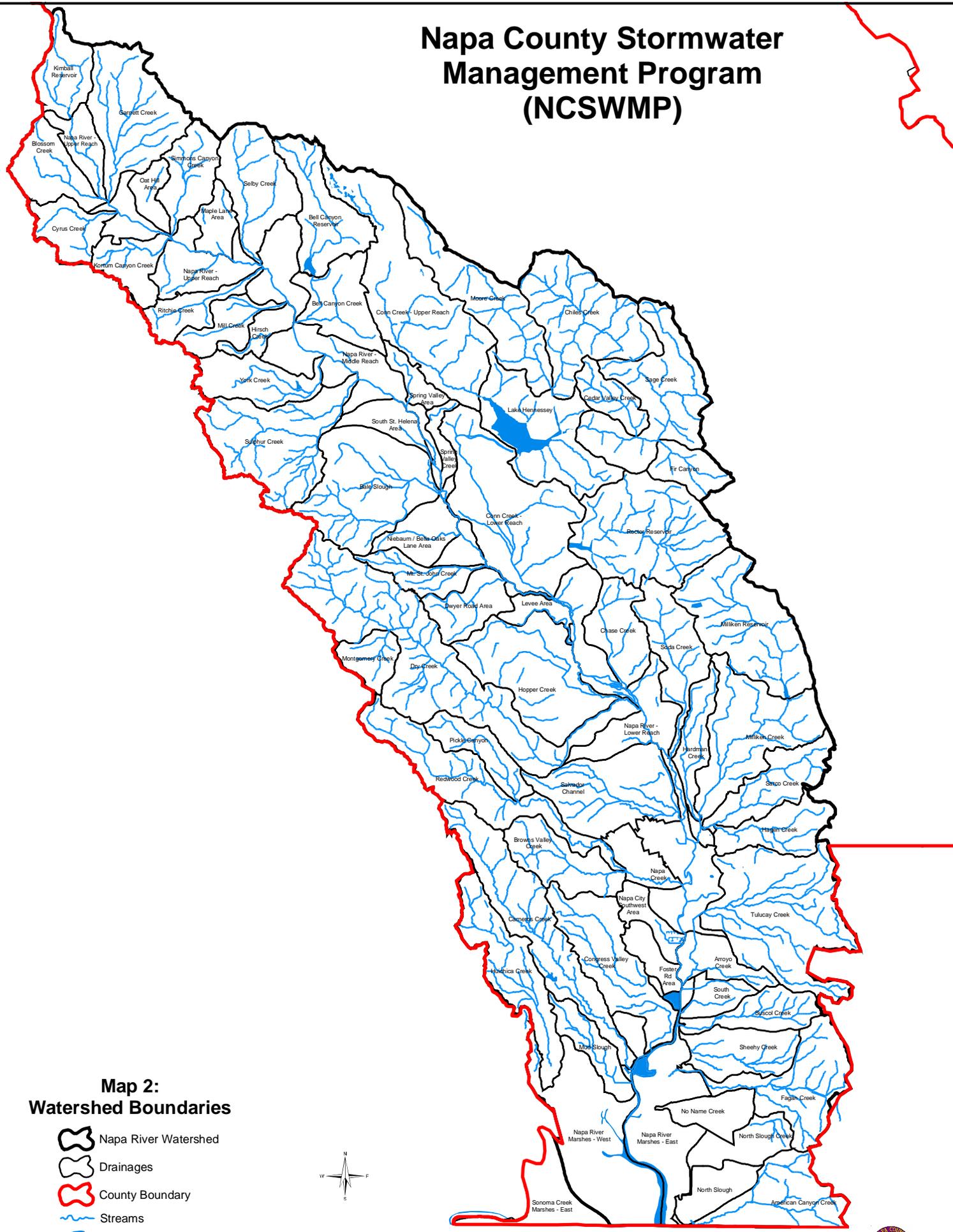
-  Napa River Watershed Boundary
-  County Boundary
-  Streams
-  Highways
-  Water Bodies
-  American Canyon
-  Calistoga
-  Napa
-  St. Helena
-  Yountville



0 6,250 12,500 25,000 37,500 50,000 Feet

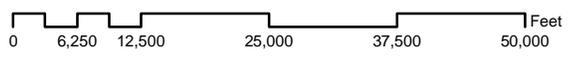


Napa County Stormwater Management Program (NCSWMP)



**Map 2:
Watershed Boundaries**

-  Napa River Watershed
-  Drainages
-  County Boundary
-  Streams
-  Water Bodies



Napa County Stormwater Management Program (NCSWMP)

Land Use Map

The Land Use Map provides a generalized picture of the goals and policies contained in the Land Use Element Report using eight broad land use classifications and eight symbols. The map presents a graphic overview of the general distribution and location of major land use areas and facilities.

Map 3: Predominant Land Use

General Plan

Urban

-  Cities
-  Urban Residential
-  Rural Residential
-  Industrial
-  Public-Institutional

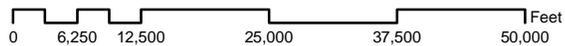
Open Space

-  Agricultural Resource
-  Agriculture, Watershed & Open Space

Transportation

-  Airport Clear Zone
-  Mineral Resource

-  Napa River Watershed
-  County Boundary
-  Water Bodies
-  Highways



Napa County Stormwater Management Program - Action Plan 2003 to 2007

Table 1: Stormwater Management Plan Task Overview

Local Programs = County of Napa, City of Napa, Yountville, St. Helena, Calistoga

▼ = Lead for this Task

Task	Description	Countywide Program			Local Program		
		NCFCWCD	DEM	Napa RCD	Stormwater Coordinator	Public Works	Planning and Building Staff
Administration, Planning, Financing							
1	Ad-hoc Work Groups	▼ Facilitate	Participate	Participate	Participate	Participate	Participate
2	County-wide Activities for the Coming Year	▼ Propose	Propose	Propose	Review/Approve		
3	Local Activities for the Coming Year	Review/Comment	Review/Comment	Review/Comment	▼ Prepare	Provide Info	Provide Info
4	County-wide Program Budget	▼ Propose	Propose	Propose	Review/Approve		
5	Local Budgets and Sources of Funds	Review/Comment			▼ Prepare	Provide Info	Provide Info
6	Annual Reports	▼ Prepare	Provide Info	Provide Info	▼ Compile Info	Provide Info	Provide Info
7	Annual Local Program Review Meetings	Facilitate			▼ Coordinate	Participate	Participate
Public Education and Outreach							
1	Characterize the General Public	▼	Review/Comment		Provide Info		
2	Outreach to Local Government Officials	Facilitate			▼		
3	Stormwater Website	▼	Review/Comment	Review/Comment	Review/Comment	Review/Comment	Review/Comment
4	Community Events	Review/Comment	▼ Participate	Participate	Review/Comment	Participate	Participate
6	Business Outreach	Review/Comment	▼		Review/Comment		
7	Outreach to General Public	Review/Comment	▼ Participate		Review/Comment		
8	Outreach to Schools	Review/Comment	Review/Comment	▼	Review/Comment		
Public Involvement/Participation							
1	Public Review of the SWMP	▼ Facilitate			Facilitate		
2	Stormdrain Stenciling Program		Provide Materials	Facilitate	▼ Participate		
3	Water Quality Monitoring	Review/Comment		▼			
4	Coast and Creek Cleanup Day	Facilitate	Participate	Facilitate	Facilitate	Participate	
5	Watershed Stewardship	Facilitate		▼	Facilitate		

Napa County Stormwater Management Program - Action Plan 2003 to 2007

Table 1: Stormwater Management Plan Task Overview

Task	Description	Countywide Program			Local Program		
		NCFCWCD	DEM	Napa RCD	Stormwater Coordinator	Public Works	Planning and Building Staff
	Illicit Discharge Detection and Elimination						
1	Develop and Adopt an Ordinance	Review/Discuss	Review/Discuss		Coordinate		▼
2	Develop a Structure for Screenings and Investigations	Review/Comment	Review/Comment		▼	Participate	
3	Staff Training	▼ Facilitate	Participate		Coordinate	Participate	
4	Develop a Map of Outfalls				Coordinate	▼	
5	Develop a Map of the Storm Sewer System				Coordinate	▼	
6	Outreach - "The Road Kit"	▼ Develop	Review/Comment	Review/Comment	Review/Comment	Participate	Review/Comment
	Construction Site Runoff Control						
1	Legal Authority	Review/Comment			Coordinate	Review/Comment	▼
2	Outreach	▼ Facilitate			Coordinate		Participate
3	Plan Review Process	Review/Comment			Coordinate	Participate	▼
4	Inspection Program	Review/Comment			Coordinate		▼
	Post-Construction Runoff Management						
1	Legal Authority	Review/Comment	Review/Comment		Coordinate	Review/Comment	▼
2	Develop Design Standards	Review/Comment	Review/Comment		Coordinate	Review/Comment	▼
3	Develop Maintenance Program for Structural Controls	Review/Comment	Review/Comment		Coordinate	Review/Comment	▼
	Municipal Operations						
1	Street Sweeping	Facilitate	Review/Comment		Coordinate	▼	
2	Storm Drain Facilities	Facilitate	Review/Comment		Coordinate	▼	
3	Storm Water Pump Stations	Facilitate	Review/Comment		Coordinate	▼	
4	Litter Control	Facilitate	Review/Comment		Coordinate	▼	
5	Corporation Yards	Facilitate	Review/Comment		Coordinate	▼	
6	Road Maintenance	Facilitate	Review/Comment	Facilitate	Coordinate	▼	
7	Creek and Ditch Maintenance	Facilitate	Review/Comment		Coordinate	▼	
8	Parks and Recreation	Facilitate	Review/Comment		Coordinate	▼	
9	Other Activities	Facilitate	Review/Comment		Coordinate	▼	

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 2: Public Education and Outreach Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
	0	0	0	0	0					
	3	4	5	6	7					
	-	-	-	-	-					
	0	0	0	0	0					
	4	5	6	7	8					
1. Characterize general public.										
1A Collect census data.	X					Characterize the general public through census data. Through census data, determine groups of population in terms of age, language spoken, and concentration.	PM Information collected from census data.	NA	Public	County-wide Program NCFCWCD
1B Develop survey material	X					Review and adapt other agencies' survey to gather resident's current knowledge of storm water pollution, gardening, and vehicle servicing habits; and determine how to best reach different pockets of audience.	PM Completed survey ready for use.	Public's opinion on pollution and how to protect our waters is important.		
1C Conduct a pilot survey	X					Conduct an initial survey to a small audience.	PM 25 to 50 survey forms filled out at community events.			
1D Conduct survey		X		X		Evaluate and improve survey as needed. Evaluate options for conducting survey and implement.	PM Get at least 300 responses to the survey. Repeat survey in 4th year.			
1E Analyze Survey Data			X		X	Compile, analyze, and interpret surveys.	PM Report complete EM Recommendations made based on results of the survey.			
2. Outreach to local government officials.										
2A Develop presentation	X					Develop presentation to inform local government officials of the importance of reducing storm water pollution, the regulatory requirements, and the local Storm Water Pollution Prevention Plan.	PM Completed PowerPoint presentation.	NPDES permit requirements, SWMP content, measurable goals.	Local government officials	All Local Programs/ County-wide Program NCFCWCD
2B Give presentation	X					Give presentation at local council meetings and management meetings.	PM Number of presentation given to local council members, and managers.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 2: Public Education and Outreach Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
2C Annual progress reports						Present annual progress report to public officials.	PM Presentations given to local council members, and managers after each annual report is completed.	Program achievements and needs.	Local government officials	All Local Programs/ County-wide Program NCFCWCD
		X	X	X	X					
3. Stormwater Website										
3A Develop Website		X				Develop website with info on the SWMP, illicit discharge hotline, upcoming workshops/events, FAQ, and BMP's for businesses and residences. Website will be a stand-alone site. City and county websites will provide links to the NCSWMP site.	PM Website developed EM Number of visits to website.	Only rain down the storm drain.	General Public	County-wide Program NCFCWCD
3B Evaluate website			X	X	X	Receive feedback on website and continue development/updates.	PM Evaluate annually and continued development/updates			
4. Community Events										
4A Develop booth		X	X	X	X	Develop booth to inform the public on the importance of reducing SW pollution and what they can do to reduce SW pollution.	PM Booth, outreach materials, and activities developed.	Only rain down the stormdrain; reduce use of water, nutrients, and pesticides;	General Public	County-wide Program DEM
4B Staff booth at events		X	X	X	X	Staff SW booth at community events.	PM Attend at least 3 events per year. (e.g. Earth Day, Home and Garden Show, Symphony on the River, etc.)	hazardous waste disposal and used oil recycling.		
4C Evaluate booth			X	X	X	Use the results from the public surveys to assess the need to target additional pollutants/activities.	PM Continue booth development as needed.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 2: Public Education and Outreach Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
5. Outreach to general public										
5A Yard waste reduction workshops	X					Conduct a yard waste reduction and home composting workshop.	PM Workshop held.	Leaves and organic matter.	Residences	Local Program City of Napa
5B Trash can decals	X	X	X	X	X	Provide bilingual (English and Spanish) trash can decals about proper disposal of hazardous waste and used oil. Include message "only rain down the drain".	PM Include with all cans provided by garbage service.	Hazardous waste and used oil recycling; "only rain down the drain".	Residences and businesses.	
5C Napa-Vallejo Household Haz Waster Facility	X	X	X	X	X	Continue to provide	PM Open to the public every Fri and Sat, (May-Oct) and two weekends per month (Nov-Apr). EM Quantity and types of waste collected.	Pesticides, cleaners, batteries, solvents, paints, thinners, old gasoline, adhesives, syringes.	Residences and businesses.	
5D Upvalley hazardous waste collection	X	X	X	X	X	Continue to hold hazardous waste collection days for the upvalley community.	PM 2-4 events per year	Paints, solvents, pesticides, etc.	Residences	County-wide Program DEM
5E Creek Dumping Brochure	X					Develop a brochure to address creek dumping of leaves and landscape materials.	PM Brochure developed	"Don't dump in the creek" ,"Leaf the creek alone"/Leaves, yard trimmings, compost	Landscape contractors and private residences	County-wide Program NCFCWCD
5F	X					Mail brochure to landscape contractors in Napa County.	PM Mailed to > 80% of listed landscape contractors in Napa County.		Landscape contractors.	
5G		X				Mail to property owners adjacent to streams.	PM Mailed to > 80% of property owners adjacent to streams.		Private residences	
5H Used oil recycling	X					Purchase radio advertisements	PM Advertisements purchased	Why used oil should be recycled, locations in Napa County that accept used oil.	Public	County-wide Program City of Napa DEM
5I	X	X	X	X	X	Place ad in Yellow pages and purchase "used Oil Recycling in Napa County" radio advertisement	PM Advertisement placed			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 2: Public Education and Outreach Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
5J Used oil recycling (cont)	X	X	X	X	X	Provide Point of purchase info at stores that sell used oil.	PM 50 percent of businesses selling used oil participating first year. 80 Percent 2nd year. EM Amount of used oil collected.	Why used oil should be recycled, locations in Napa County that accept used oil.	Public	County-wide Program City of Napa DEM
5K Prioritize future outreach		X			X	Prioritize outreach to address other sources of SW pollution based upon results of illicit discharge data.	PM Outreach priorities established.	Depends on the priority pollutants and most common sources.	Public	County-wide Program NCFCWCD
5L Develop materials			X	X	X	Develop priority outreach materials	PM One new message/outreach piece per year.			
5M Distribute materials			X	X	X	Method of distribution will depend on the target audience of the outreach materials.	PM Materials distributed			
6. Outreach to schools										
6A Develop a SW education program	X					Develop lesson plans and activities.	PM Lesson plans and activities developed.	Importance of healthy streams, lakes, wetlands, etc; Pollutants that threaten water quality; Pollution prevention practices.	Grades 3-6	County-wide Program RCD
6B Develop before/after survey materials	X					Develop before and after survey to evaluate effectiveness of the presentation.	PM Survey materials developed			
6C Conduct presentations		X	X	X	X	Conduct presentations.	PM Present to 5 classrooms by 2nd year, 10 classrooms every year thereafter.			
6D Evaluation		X	X	X	X	Conduct survey before and after presentation to assess understanding of SW pollution.	PM Survey conducted EM Results analyzed for accomplishments and deficiencies.			
6E Program improvement		X	X	X	X	Improve program lesson plans and activities based on feedback from students and teachers.	PM Lesson plans and activities revised as needed.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 3: Public Involvement and Participation Element

Activity/BMP's	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
1. Public Comment on SWMP										
1A Public comment on SWMP	X					Invite public to comment on Stormwater Management Plan as required by State and local public notice requirements.	PM Send notice of request for comments on SWMP to environmental and business groups. EM Number of comments and number of individuals and groups participating.	NA	Environmental groups, business groups, and general public	County-wide Program NCFCWCD
1B Response to comments	X					Respond to comments.	PM Submit written comments to public.			
1C Revise SWMP	X					Revise Storm Water Management Plan based on comments.	PM Revision complete. EM Revisions made.			
2. Stormdrain Stenciling										
2A Storm drain stenciling plan	X					Determine which SD inlets have SD markers/stencils, develop a plan for filling gaps, determine how often SD's need to be stenciled, which messages are appropriate, and identify groups to stencil SD's	PM Plan developed	"No Dumping - SD drains to creek/river/bay"	Citizen volunteers	Local programs City of Napa Yountville Calistoga Napa County
2B SD stenciling program	X	X	X	X	X	Provide materials and supplies to citizens and groups. Advertise program on SW website, SW booth, and at applicable stewardship group meetings.	PM One SD stenciling event per year.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 3: Public Involvement and Participation Element

Activity/BMP's	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
3. Water Quality Monitoring										
3A Evaluation and assessment		X				Evaluate existing monitoring program. Determine other sites and chemical tests for monitoring.	PM Sites and parameters for monitoring determined.	To be determined (e.g. Temp, DO, pH, etc.)	Citizen volunteers	County-wide Program RCD
3B Data Management		X				Evaluate existing database and improve as appropriate.	PM Database improved as appropriate.	Data can be used to prioritize watershed efforts and to track illicit discharges		
3C Recruit volunteers		X				Solicit volunteers for monitoring program. Advertise in newsletters, websites, and newspaper.	PM Volunteers recruited. EM # of volunteers participating and # of sites monitored.	NA		
3D Develop training program		X				Develop training program for volunteers.	PM Training program developed.	Proper use of sampling equipment and using water quality kits.		
3E Train volunteers		X				Implement training program to ensure data quality.	PM Volunteers trained			
3F Monitoring		X				Implement volunteer water quality monitoring program.	PM Implement monitoring program. 12 sites FY 04/05; 18 sites FY 05/06. EM Use of data to establish needed programs and characterize water quality.	To be determined (e.g. Temp, DO, pH, etc.)		

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 3: Public Involvement and Participation Element

Activity/BMP's	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
4. Creek Cleanups										
4 Coast and Creek Cleanup Day	X	X	X	X	X	Promote and facilitate event.	PM Increase garbage collected and number of participants by 10% in 2003. EM Number of participants and amount of garbage collected.	Trash and litter	Citizen volunteers	County-wide Program RCD, NCFCWCD, DEM
5. Stewardships										
5A Salvador Creek Stewardship	X					Hire the RCD to coordinate and support activities in the stewardship group.	PM Stewardship meeting held, mission statement adopted, and group activities conducted.	Stream function, plants and wildlife, invasive species, restoration, creek cleanup events,	Residents in the Salvador Creek Watershed.	Local Program City of Napa Napa County
5B Rutherford Dust Restoration Team	X	X				Provide staff to support restoration efforts along the Napa River in Rutherford.	PM Conceptual restoration plan developed.	Enhanced riparian habitat and improved stream function.	Landowners along a 4 mile reach of the Napa River in Rutherford.	Local Program Napa County

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 4: Illicit Discharge Detection and Elimination Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers	
	03	04	05	06	07						
1. Legal Authority											
1A Develop and adopt ordinance.	X					Review other agencies' ordinances. Adapt and adopt.	PM Ordinance adopted.	Only rain down the storm drain.	Activities within the jurisdiction that result in regulated nonstormwater discharges.	All Local Programs	
1B Evaluate and amend			X			Evaluate effectiveness of ordinance w.r.t pollutants addressed.	PM Ordinance evaluated and amended as necessary. EM Recommendations made.	Nonstormwater discharges not regulated under existing ordinance.			
1C Enforcement Response Plan (ERP)	X					Establish actions taken for violations, a timeframe for action, by whom the actions will be taken, and along what paths enforcement will be escalated.	PM Enforcement Response Plan implemented.	Nonstormwater discharges must be prevented to protect water quality			Violators of the SW Ordinance.
1D ERP Training	X					Train appropriate staff on the policies and procedures of the ERP.	PM All relevant staff trained annually.				Code enforcement staff.
1E Evaluate and amend ERP			X			Evaluate effectiveness of ERP w.r.t. ensuring compliance with the SW ordinance.	PM ERP evaluated and modified as necessary. EM % of violators improving pollution prevention practices. Number and type of discharges not abated.				NA
2. Spill Response											
2A Reporting forms and database.	X					Review other agencies' reporting forms and databases. Develop reporting forms and database.	PM Database and reporting forms developed.	Only rain down the storm drain; Oil, grease, sediment, paint, detergents, etc.	NA	County-wide Program NCFCWCD	
2B Identify structure	X					Identify staff to receive calls from the public, conduct elimination, clean-up, and follow-up of illicit discharges.	PM Staff identified.		Municipal staff	All Local Programs	

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 4: Illicit Discharge Detection and Elimination Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
2C Spill response plan		X				Develop procedures for responding to and cleaning up hazardous and nonhazardous spills/dumping during normal working and non-working hours.	PM Spill response plan developed.	Only rain down the storm drain; Oil, grease, sediment, paint, detergents, etc.	Municipal staff	County-wide Program NCFCWCD
2D Staff training		X			Develop training program for receiving calls, identifying illicit discharges, spill clean-up, and educating the public on the use of BMP's	PM Training program developed.				
2E		X			Implement training program. Administer a survey at the beginning of the training to gauge staff's understanding of illicit discharges. At the end of the training, give case studies as a quiz to ensure staff can recognize illicit discharges and understand the procedures for	PM All relevant staff trained. EM Staff performance on quiz.				
2F Stormwater Hotline		X			Establish a phone number to receive information about non-storm water discharges from the public. Identify staff to receive calls from the public and initiate spill response plan.	PM Phone number established and staff identified. EM # of violations reported from the public.	General public		All Local Programs	
2G Record keeping		X	X	X	X	Dedicated staff will maintain and update data base and generate reports as requested. Reports used to determine common pollutants, activities contributing to non SW discharges, and repeat offenders. Information used to prioritize PEO efforts, business inspections, and conduct enforcement.	PM Annual reports generated on time. EM Use of reports to prioritize outreach and business inspections. Number of spills prevented from reaching waters of the State.	Municipal staff		

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 4: Illicit Discharge Detection and Elimination Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
2H Develop a road kit.		X				Develop appropriate outreach materials for distributing to violators (e.g. creek dumping, paint and other haz waste disposal, surface cleaning, construction BMP's, etc.)	PM Materials developed. Provide a road kit for every vehicle used for inspection and maintenance purposes. Distribution of materials tracked with spill investigation form. EM # of repeat offenses.	Sediment, grease, oil, sediment, landscape waste, etc.	Inspectors and maintenance staff	County-wide Program NCFCWCD
3. SD System Mapping										
3A Develop maps of outfalls.		X				Collect all existing information on outfalls and map it.	PM Information compiled.	Final outfall map will assist in locating all the outfalls .	NA	All Local Programs
3B Identify data gaps.			X			Identify data gaps.	PM Data gaps identified.			
3C Fill in data gaps.				X		Collect data to fill in data gaps.	PM Data gaps filled.			
3D Draw final map.					X	Draw final map.	PM Final outfall map completed. EM Use of map to eliminate and detect illicit discharges.			
3E Develop map of the municipal storm drain system.		X				Collect all existing information on storm drains and Waters of the State and map it.	PM Information compiled.	Final storm drain system map will help accurately trace illicit discharges.		
3F Identify data gaps.			X			Identify data gaps.	PM Data gaps identified.			
3G Fill in data gaps.				X		Collect data to fill in data gaps.	PM Data gaps filled.			
3H Draw final map.					X	Draw final map.	PM Final storm drain system map completed. EM Use of map to eliminate and detect illicit discharges.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 4: Illicit Discharge Detection and Elimination Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
4. Business Inspections										
4A Develop materials for food service facilities	X					Develop BMP booklet for food service facilities and distribute to retail food businesses. Attach to all new restaurant business applications.	PM Materials developed and distributed to all restaurants. Reduce SW violations by third year.	Legal requirements; Proper management and disposal of litter, grease and oils, detergents.	Food service facilities	County-wide Program DEM
4B Distribute BMP booklets	X	X	X	X	X	Distribute BMP guides during routine restaurant inspections and all restaurant permit applications.	PM Distributed to all restaurants inspected and with all restaurant permit applications. EM % of businesses in compliance			
4C Develop inspection forms and database.	X					Develop inspection forms and data base to track business compliance and program performance.	PM Forms and database developed.	NA	NA	
4D Training for inspectors	X	X	X	X	X	Develop and implement training program for inspectors. Use post survey to gauge inspector's understanding of the requirements.	PM Annual training for inspectors as appropriate. EM Score on post survey.	Phase II requirements; impacts of grease, soaps, and other pollutants potentially generated from restaurants on water quality, proper use of BMP's	Inspectors	
4E Inspections	X	X	X	X	X	Conduct restaurant inspections	PM Inspect at least 25% of restaurants annually. EM % of restaurants in compliance.	Meet local and state requirements for SW discharges.	Food service facilities	
4F Hazardous waste disposal	X	X				Develop and mail brochures to businesses on proper hazardous waste disposal.	PM Developed and sent to 1/2 of businesses 1st year, 1/2 of businesses 2nd year.	Paints, pesticides, solvents	Commercial facilities	

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 4: Illicit Discharge Detection and Elimination Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/ Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
4G Inspections	X	X	X	X	X	Implement inspection program for businesses that handle hazardous materials and waste.	PM Inspection program implemented; inspect 300 facilities per year. EM % of businesses in compliance.	Legal requirements; Proper use of BMP's to reduce SW pollution.	Commercial facilities	County-wide Program DEM
4H Business Newsletter	X	X	X	X	X	Produce and mail annual newsletter to businesses which includes a message on SW regulations and preventing SW pollution.	PM Annual newsletter mailed to all regulated businesses.	Grease, oil, hazardous materials, etc.	Businesses regulated by DEM	

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 5: Construction Site Runoff Control Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
1. Legal Authority										
1A Develop and adopt ordinance requirements for construction sites that disturb one acre or more.	X					Review other agencies' ordinances. Adapt and adopt.	PM Ordinance adopted.	Require use of BMP's to control erosion and sediment control measures and BMP's to reduce trash, oil, pH, and other nonstormwater pollutants.	Construction sites	All Local Programs
1B Evaluate ordinance			X			Evaluate requirements and compliance with local, state, and federal regulations.	PM Ordinance evaluated and amended as necessary.	Ensure that the ordinance provides the most effective prevention of construction site pollutants.		
1C Enforcement Response Plan (ERP)	X					Establish actions taken for violations, a timeframe for action, by whom the actions will be taken, and along what paths enforcement will be escalated.	PM Enforcement Response Plan implemented.	Effective ESC measures and BMP's are necessary to protect water quality.		
ERP Training	X					Train appropriate staff on the ERP procedures and policies.	PM All relevant staff trained annually.		Code enforcement officers.	
1D Evaluate and amend ERP			X			Evaluate effectiveness of ERP w.r.t. ensuring compliance with the SW ordinance.	PM ERP evaluated and modified as necessary.			
2. Plan review process										
2A Develop review process		X				Review and revise plan review process. Develop plan check list and instructions. Include relevant State and Federal permits in checklist.	PM Plan review process developed; plan check list and instructions developed.	Organization and requirements of the plan review process. Compliance with NPDES Construction Permit and implement ESC measures.	Planners, developers, contractors, and the public.	All Local Programs

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 5: Construction Site Runoff Control Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
2B Draft training materials		X				Develop training program for plan review staff.	PM Training program developed.	Organization and requirements of the plan review process. Compliance with NPDES Construction Permit and implement ESC measures.	Planning staff	All Local Programs
2C Implement training program			X			Train staff on revised plan review process.	PM Relevant staff trained annually. EM All participants understand the process and requirements.			
2D Implement Plan Review Process			X			Implement plan review process to ensure that construction sites > 1 acre are covered by the NPDES Construction Permit and projects < 1 acre include plans for ESC measures.	PM Plan review process implemented. EM % approved with an ESC plan; % approved in compliance with State and Federal regulations.		Project applicants.	
3. Inspection Program										
3A Draft training materials.		X				Develop training materials and curricula to ensure that inspectors understand stormwater regulations and use of BMP's to reduce or eliminate non-SW discharges.	PM Completed training materials ready for use.	Proper use of BMP's to reduce non SW pollution; sediment, pathogens, oil, paint, etc.	Planners, inspectors, and other public works staff.	County-wide Program NCFCWCD
3B Pilot training program.			X			Hold pilot training program for planners/inspectors.	PM At least one inspector from each municipality. EM Pre and post surveys and candid evaluation of training materials.			
3C Revision of training materials.			X			Revise training materials based on comments from pilot program.	PM Final version of training materials developed.		Construction site inspectors	

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 5: Construction Site Runoff Control Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
3D Implement training program		X	X	X	X	Inspectors from each municipality to attend training program.	PM Annual training of all relevant inspectors. EM Use pre and post surveys to ensure that participants understand the requirements	Proper use of BMP's to reduce non SW pollution; sediment, pathogens, oil, paint, etc.	Construction site inspectors	County-wide Program NCFCWCD
3E Implement inspection program		X	X	X	X	Inspect construction sites prior to the onset of the wet season and after major storm events.	PM Inspect 5 construction sites within 48 hours of a major (>0.25 inches) storm event. EM % of sites inspected during wet season, % of sites in compliance			All Local Programs
3F Construction compliance hotline		X				Establish a phone number for the public to report nonstormwater runoff from construction sites.	PM Hotline established EM # of noncompliant sites reported		General Public	
4. Outreach										
4A Stormwater regulations and guidance for compliance brochure	X					Develop a brochure explaining NPDES construction requirements and guidelines for Post-construction design-Attach to all permit applications.	PM Brochure developed and distributed with applications, planning department front counters, and at workshops. EM Number of comments and diversity of groups commenting.	NPDES construction permit requirements, better site design for post-construction, resource directory.	Contractors and developers	County-wide Program NCFCWCD

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 5: Construction Site Runoff Control Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s)/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
4B Provide BMP fact sheet(s) for construction activities	X	X	X	X	X	Provide BMP fact sheets, guidance documents, and handbooks to contractors and developers	PM Informational materials (Stormwater BMP Handbooks, ESC Field manual, Guidelines for Construction Projects, etc.) provided to public upon request. EM # distributed.	Sediment, cement, paint, oils, trash, etc.	Contractors and developers	County-wide Program NCFCWCD
4C Permit process		X				Develop a brochure explaining the revised permit process. Attach to all permit applications.	PM Brochure developed	Explain permit process for construction activities > 1 acre and < 1 acre.		All Local Programs
4D Construction site erosion control workshop	X	X	X	X	X	Encourage planners, inspectors municipal staff, contractors, and architects to attend annual construction workshops held by the Regional Board and SFEI.	PM Advertisement posted in Solano-Napa Builders Exchange newsletter, brochures provided at planning and building departments. EM Attendance	Phase II requirements, proper use of BMP's to control runoff.		Planners, inspectors, municipal staff, contractors, architects.
4E Construction site erosion control workshop	X	X	X	X	X	Attend workshop.	PM At least one planner/inspector and one public works employee shall attend.	Phase II requirements, proper use of BMP's to control runoff.	Planners, inspectors, municipal staff, contractors, architects.	All Local Programs
4F Evaluate and Revise			X			Receive feedback on outreach materials and revise materials as needed.	PM Evaluate annually EM Revise as needed.			County-wide Program NCFCWCD

Napa County Stormwater Management Program - Action Plan FY 03/04 to 07/08

Table 6: Post-Construction Runoff Management Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers	
	0	0	0	0	0						
	3	4	5	6	7						
	-	-	-	-	-						
	0	0	0	0	0						
4	5	6	7	8							
1. Legal Authority											
1A	Develop and adopt ordinance requirements for construction sites that disturb one acre or more.	X					Review other agencies' ordinances. Adapt and adopt.	PM Ordinance adopted.	Require long-term runoff management from new and redevelopment that disturbs > 1 acres. Sediment, oil and grease, trash, fertilizer and pesticides.	New and redevelopment > 1 acre	All Local Programs
1B	Evaluate and revise ordinance		X				Evaluate effectiveness of ordinance and revise as appropriate.	PM Ordinance evaluated and revised.	Ensure the ordinance provides the most effective long-term control of pollution from new development and redevelopment.		
1C	Enforcement Response Plan (ERP).	X					Establish actions taken for violations, a timeframe for action, by whom the actions will be taken, and along what paths enforcement will be escalated.	PM Enforcement Response Plan developed and adopted.	Post-construction BMP's must be adequately operated and maintained to ensure that water quality is protected.	Code enforcement staff.	
1D	ERP Training	X					Train appropriate staff on the ERP procedures and policies.	PM All relevant staff trained annually.			
1E	Evaluate and amend ERP			X			Evaluate effectiveness of ERP w.r.t. ensuring compliance with the SW ordinance.	PM ERP evaluated and modified as necessary. EM Recommendations made.			
2. Design Standards, * = standards in Attachment 4 of State Municipal General Permit.											
2A	Introductory training	X					Develop training materials and curricula.	PM Materials and curricula developed.	Overview of Post-construction requirements (existing state and upcoming local) and use of appropriate BMP's.	Planners	County-wide Program NCFCWCD

Napa County Stormwater Management Program - Action Plan FY 03/04 to 07/08

Table 6: Post-Construction Runoff Management Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers		
	0	0	0	0	0							
	3	4	5	6	7							
	-	-	-	-	-							
	0	0	0	0	0							
Design Standards Attachment 4* - All categories: Single-Family Hillside Residences, 100,000 sq. ft. Commercial Developments, Automotive Repair Shops, Retail Gasoline Outlets, Restaurants, Home Subdivisions with 10 or more housing units, Parking Lots 5,000												
2B	Peak SW runoff discharge rates		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	PD peak SW runoff discharge rates shall not exceed estimated predevelopment where increased runoff will result in increased potential for downstream erosion.	New development and redevelopment	All Local Programs	
2C	Conserve natural areas		X									Cluster development, limit clearing and grading, maximize trees and other vegetation.
2D	Minimize SW pollutants of concern		X									Incorporate BMP's or combination of BMP's to reduce runoff of pollutants of concern to the MEP.
2E	Protect slopes and channels		X									Plans must include BMP's to decrease potential of slopes and/or channels from eroding and impacting SW runoff.
2F	Provide SD system stenciling and signage		X									Mark SD inlets with a sign or stencil that includes a brief statement that prohibits dumping into the SD system.
2G	Properly design outdoor material storage areas		X									Ensure outdoor storage areas do not contaminate SW runoff.
2H	Properly design trash storage areas		X									Ensure trash storage areas do not contaminate SW runoff.
2I	Provide proof of ongoing BMP maintenance		X									Ensure that PD BMP's are adequately maintained for the life of the project through maintenance agreements (see Tasks 3A to 3D below).

Napa County Stormwater Management Program - Action Plan FY 03/04 to 07/08

Table 6: Post-Construction Runoff Management Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	0	0	0	0	0					
	3	4	5	6	7					
	-	-	-	-	-					
	0	0	0	0	0					
2J Design standards for structural of treatment control BMP's		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	Require PD treatment control incorporate either a volumetric or flow-based treatment control standard to mitigate SW runoff.	New development and redevelopment	All Local Programs
Design Standards Attachment 4* - 100,000 sq. ft commercial										
2K Properly design loading/unloading dock areas.		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	Covers, reduce run-on and runoff, prohibit direct connections of depressed loading docks to SD	100,000 sq ft commercial.	All Local Programs
2L Properly design repair/maintenance bays		X						Design to eliminate run-on and runoff of SW, prohibit direct connections to the SD system.		
2M Properly design vehicle/equipment wash areas		X						Self-contained and/or covered, equipped with pretreatment facility, and properly connected to sanitary sewer or other appropriately permitted disposal facility.		
Design Standards Attachment 4* - Restaurants										
2N Properly design equipment/accessory wash areas		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	Self-contained, equipped with grease trap, and properly connected to sanitary sewer; outdoor wash areas must be covered, paved, have secondary containment, and be connected to the sanitary sewer or other appropriately permitted disposal	Food service facilities.	All Local Programs
Design Standards Attachment 4* - Retail gasoline outlets										
2O Properly design fueling area		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	Fueling area properly covered, paved with smooth impervious surface, designed to reduce run-on and runoff.	Retail gasoline outlets	All Local Programs
Design Standards Attachment 4* - Automotive repair shops										
2P Properly design fueling area		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	Fueling area properly covered, paved with smooth impervious surface, designed to reduce run-on and runoff.	Automotive repair shops.	All Local Programs

Napa County Stormwater Management Program - Action Plan FY 03/04 to 07/08

Table 6: Post-Construction Runoff Management Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	0	0	0	0	0					
	3	4	5	6	7					
	-	-	-	-	-					
	0	0	0	0	0					
2Q Properly design repair/maintenance bays		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	Must be indoors, designed to eliminate run-on and runoff of SW, prohibit direct connections to the SD system.	Automotive repair shops.	All Local Programs
2R Properly design vehicle/equipment wash areas		X						Self-contained and/or covered, equipped with pretreatment facility, and properly connected to sanitary sewer or other appropriately permitted disposal facility.		
2S Properly design loading/unloading dock areas.		X						Covers, reduce run-on and runoff, prohibit direct connections of depressed loading docks to SD system.		
Design Standards Attachment 4* - Parking Lots										
2T Properly designing parking areas		X				Adopt standard in attachment 4 of the State General Permit	PM Design standard adopted	Reduce impervious surfaces of parking areas; infiltrate or treat runoff.	Parking lots	All Local Programs
2U Properly design to limit oil contamination and perform maintenance		X								
2V Consider other appropriate design standards.		X				Identify and develop other design standards appropriate to community.	PM Additional design standards considered to protect water quality identified.	Stormwater quantity and quality from new development and redevelopment	New development and redevelopment.	
2W Adopt design standards			X			Adopt design standards identified in task 2X.	PM Design standards adopted			

Napa County Stormwater Management Program - Action Plan FY 03/04 to 07/08

Table 6: Post-Construction Runoff Management Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	0	0	0	0	0					
	3	4	5	6	7					
	-	-	-	-	-					
	0	0	0	0	0					
	4	5	6	7	8					
3. Plan Review Process										
3A Develop plan review process		X				Review and revise plan review process to incorporate new requirements for Post-construction. Plan review process includes a checklist and instructions.	PM Plan review process revised to incorporate new requirements for post-construction.	Ensure that new development and redevelopment projects over 1 acre implement BMP's to the MEP to reduce or eliminate long-term nonstormwater runoff.	Planners and developers.	All Local Programs
3B Develop training program			X			Develop training program on new revised plan review process.	PM Training program developed.			
3C Implement training program				X		Implement training program for revised plan review process.	PM Inspection program implemented. Ensure that 100% of the participants understand the requirements. Hold one training session per year.			
3D Adopt plan review process.					X	Adopt revised plan review process.	PM Process implemented; require all construction sites > 1 acre to incorporate appropriate structural and/or nonstructural controls to the MEP.			
3E Evaluation and assessment					X	Evaluate effectiveness of local design standards. Assess the need for additional standards.	PM Evaluation and assessment every 2 years.			

Napa County Stormwater Management Program - Action Plan FY 03/04 to 07/08

Table 6: Post-Construction Runoff Management Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	0	0	0	0	0					
	3	4	5	6	7					
	-	-	-	-	-					
	0	0	0	0	0					
4	5	6	7	8						
4. Long-term Maintenance										
4A	Develop O&M standards for BMP's.		X			Develop maintenance standards for Post-Construction BMP's.	PM O&M standards developed.	Prompt inspection and maintenance of structural controls will reduce discharge of polluted water into the storm drain system and help comply with SWMP.	PW staff, homeowners, businesses.	County-wide Program NCFCWCD
4B	Identify all structural controls operated by the Municipality.		X			Locate, map, photograph and describe the site conditions of the structural controls. Group the different structural controls with their respective BMPs in a final report.	PM Completed report.		Maintenance staff	All Local Programs
4C	Develop inspection and maintenance schedule.			X		Develop an inspection and maintenance schedule to maximize efficiency and minimize labor requirements.	PM Completed inspection and maintenance schedule.			
4D	Train maintenance staff.			X		Develop a training program on proper inspection and maintenance of structural controls, BMPs, and record keeping.	PM Use post test to ensure workers understand training materials and measurable goals. Check records quarterly to ensure compliance with schedule and BMPs 80% of the time.			

Napa County Stormwater Management Program - Action Plan FY 03/04 to 07/08

Table 6: Post-Construction Runoff Management Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message/Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
4E Implement maintenance schedule.			X	X	X	Inspect and maintain structural controls according to implementation schedule.	PM Check records to ensure compliance with schedule and BMPs 80% of the time.	Prompt inspection and maintenance of structural controls will reduce discharge of polluted water into the storm drain system and help comply with SWMP.	Maintenance staff	All Local Programs
4F Develop policy	X					Develop policy to ensure long-term maintenance of BMP's	PM Policy developed.	Ensure that BMP's are properly operated and maintained for the life of the development.	Developers	
4G Implement policy		X				Implement policy to ensure long-term maintenance of BMP's	PM Policy implemented.			
5. Outreach										
5A Workshop		X	X	X	X	Hold annual workshop explaining new requirements and the appropriate use and maintenance of structural and nonstructural control measures.	PM Annual workshops held. EM Attendance.	Long-term runoff management requirements for new and redevelopment. Sediment, oil and grease, trash, fertilizer and pesticides.	Planners, developers, contractors, architects.	County-wide Program NCFCWCD

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 7: Municipal Operations Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s) and Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
	0	0	0	0	0					
	3	4	5	6	7					
	-	-	-	-	-					
	0	0	0	0	0					
	4	5	6	7	8					
1. Street Sweeping										
1A Street sweep according to Table 8.	X	X	X	X	X	Street sweep according to schedule in Table 8.	PM Review records quarterly to ensure compliance to schedule in Table 1 80% of the time.	Oil and grease, metals garbage, fertilizer, dirt, and leaves.	Street sweeping department	All Local Programs
1B Develop O&M Standards	X					Develop O&M standards for street sweepers to reduce pollutants.	PM O&M standards developed.	Ensure operation of cleaning equipment per manufacturer's directions and proper storage/disposal of material.		County-wide Program NCFWCWD
1C Record Keeping		X				Develop and use forms to report the miles swept, area covered, volume or weight of material collected, and problems associated with sweeping (e.g. parked cars, leaves, trees, etc)	PM Forms developed.	Data used to evaluate performance and effectiveness of sweeping program.		
1D		X				Develop and use forms to track maintenance of street sweeping equipment (e.g. equipment adjustments, parts replacements, etc)				All Local Programs
1E Sweeping Program Evaluation			X	X	X	Evaluate effectiveness of program and make recommendations for improvement (e.g. alter scheduling, frequency, address parked cars, etc.) based on data collected.	PM Evaluation completed, report with recommendations produced annually. EM Recommendations made.			
1F Implement improvements					X	Improve frequency and scheduling of sweeping as appropriate.	PM Improvements implemented			
1G Staff and contractor		X	X	X	X	Annually train municipal staff and contract sweepers on O&M standards, measurable goals, implementation plans, and record keeping. Use pre and post survey to gauge staffs knowledge of O&M standards and record-keeping practices.	PM All relevant staff and contractors trained annually. EM Staff understanding of O&M standards and record-keeping practices.	Contract Sweepers: Comply with terms of contract in order to assure maximum removal of pollutants from streets. Municipal staff: Comply with implementation plans.		Street sweepers

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 7: Municipal Operations Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s) and Pollutants Addressed	Targeted Audience(s)	Implementers
	00	01	02	03	04					
1H Parked and abandoned vehicles		X				Assess which areas have high numbers of parked cars reducing street sweeping effectiveness.	PM Assessment completed.	Help ensure clean streets by parking cars outside of street sweeping areas on sweeping days.	Businesses and residents	Local Programs City of Napa County of Napa
1I			X			Develop two different outreach programs to reduce parked cars that interfere with sweeping.	PM 2 pilot programs implemented			
1J			X			Identify areas to pilot outreach program.	PM Areas identified			
1K				X		Implement pilot programs in areas with high numbers of parked cars.	PM Pilot programs implemented.			
1L					X	Evaluate success of pilot programs to determine if full implementation is desirable. Success = measurable decrease in average number of cars on streets.	PM Completed evaluation. EM % increase in sweepable area.			
1M Leaves during Leaf Season		X				Assess which areas have high volume of leaves during Leaf Season	PM Completed assessment.			
1N		X				Investigate and evaluate at least two appropriate leaf handling methods. Prioritize methods for pilot programs.	PM Evaluation and prioritization of leaf handling methods.			
1O			X			Implement pilot programs to reduce volume of leaves on streets.	PM Measures implemented			
1P				X		Evaluate success of pilot programs	PM Evaluation completed EM Increase sweepable areas by 10%.			
1Q					X	Implement most effective program to reduce leaves on streets.	PM Program implemented EM Increase total sweepable areas by 25% over 2 years.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 7: Municipal Operations Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s) and Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
1R Trees near streets		X				Assess the miles of streets that have trees interfering with street cleaning.	PM Assessment completed.	Trees interfering with sweeping operations.	Street sweeping department	Local Programs City of Napa County of Napa
1S		X				Investigate and evaluate at least two appropriate methods to reduce tree interference with street cleaning. Prioritize methods for pilot programs.	PM Methods evaluated and prioritized.			
1T			X			Pilot measures to reduce tree interference with street cleaning.	PM Methods implemented			
1U				X		Evaluate success of pilot programs	PM Evaluation completed. EM Increase sweepable areas by 25%.			
1V					X	Expand pilot programs to other areas if successful.	PM Pilot program implemented. EM Increase total sweepable areas by 25% over 2 years. Evaluate mid-term.			
2. Storm Drain Maintenance										
2A Develop maintenance standards	X					Develop maintenance standards for handling and disposal of SD debris.	PM Standards developed	Leaves, trash, sediment, oil	Municipal staff	County-wide Program NCFWCWD
2B Training	X	X	X	X	X	Train municipals staff on use of BMP's.	PM All relevant staff trained annually			All Local Programs
2C Routine Inspection and Cleaning	X	X	X	X	X	Inspect and clean SD's according to Table 8.	PM Review records quarterly to ensure compliance to schedule in Table 1 80% of the time.			
2D			X			Assess the need for more frequent cleaning of stormdrains.	PM Assessment completed. EM Recommendations made.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 7: Municipal Operations Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s) and Pollutants Addressed	Targeted Audience(s)	Implementers	
	0	0	0	0	0						
	3	4	5	6	7						
	-	-	-	-	-						
	0	0	0	0	0						
	4	5	6	7	8						
3. Stormwater Pump Stations											
3A	Develop maintenance standards	X					Develop maintenance standards to minimize or eliminate pollutants	PM Standards developed.	Sediment and oil	Pump station maintenance crew	Local Programs City of Napa
3B	Train municipal staff	X	X	X	X	X	Educate all personnel responsible for SW pump stations about these maintenance standards.	PM All relevant staff trained annually			
3C	Visual Inspections	X	X	X	X	X	Inspect wet wells and forebays for oil spills or other pollutant discharges.	PM Once in June and once in August; Once/month Oct - April.			
3D	Maximize pollutant removal prior to discharge.	X	X	X	X	X	Conduct comprehensive cleaning of wet wells.	PM Pump stations cleaned annually; prior to wet season.			
4. Litter Control											
4A	Services	X	X	X	X	X	Provide litter receptacles in litter source areas and empty regularly to prevent spills.	PM Receptacles provided and maintained.	Litter	Public	All Local Programs
4B	Assessment		X				Document areas targeted for litter removal and assess the need for additional/better trash receptacles or more frequent collection.	PM Assessment completed EM Recommendations made.			Local Programs City of Napa County of Napa
4C	Education		X				Label litter receptacles with anti-littering message	PM 25% of receptacles by 2nd year; 50% by 4th year.			
5. Corporation Yards											
5A	Prepare SWPPP		X				Develop a map that shows all facilities, potential sources of pollution, and direction of drainage	PM Map and inventory developed	Sediment, oil, paints, chemicals, litter.	Municipal staff	All Local Programs
5B				X			Develop a plan for SW management. Includes necessary capital improvements, O&M standards, and	PM SWPPP developed with timeline for implementation.			
5C				X	X	X	Implement items from SWPPP.	PM Items implemented over three to five year period. EM Number and types of BMP's implemented			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 7: Municipal Operations Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s) and Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
6. Road Maintenance										
6A Education and outreach	X					Conduct public workshop on designing and maintaining roads to reduce pollution.	PM Workshop held. Attended by at least one planner and one PW supervisor from Napa County. EM Workshop attendance, feedback.	Sediment	Municipal staff, planners, contractors, and landowners	County-wide Program NCFCWCD
6B Develop maintenance standards	X					Develop maintenance standards for roads	PM Standards developed	Sediment, asphalt	Municipal staff	County-wide Program Napa County PW
6C Training	X	X	X	X	X	Train employees on O&M standards for roads. Post-survey used to evaluate staff understanding of BMP's.	PM All relevant staff trained annually.			
7. Creek and Ditch maintenance										
7A Develop maintenance standards	X					Develop maintenance standards for the work in and near waterways.	PM Maintenance-standards developed	Sediment, gas, oil, leaves	Municipal staff and contractors	County-wide Program NCFCWCD
7B Record-keeping	X					Develop forms to track stream and channel conditions, maintenance work conducted, and inspections to ensure work was conducted according to standards.	PM Forms and database developed EM % of work done according to standards.			
7C Training	X	X	X	X	X	Train all relevant staff and contractors on maintenance standards.	PM All relevant staff trained annually.			
8. Parks and Recreation Facilities										
8A Assessment		X	X	X	X	Assess the condition of parks and related facilities (e.g. erosion, chemical use, etc.)	PM Assessment completed for one park/agency per year	Pesticides, nutrients, sediment, organic matter, fuels, oils	Maintenance crews	All Local Programs
8B Develop maintenance standards		X				Develop O&M standards for park and recreation facility maintenance.	PM O&M standards developed			County-wide Program NCFCWCD
8C Training		X	X	X	X	Train all appropriate employees on O&M standards and use of BMP's. Use a post-training quiz to ensure staff understand use of BMP's.	PM All relevant staff trained annually. EM Staff understanding of O&M standards and use of BMP's.			

Napa County Stormwater Management Program - FY 03/04 to 07/08

Table 7: Municipal Operations Element

Activity/Best Management Practices	FY					Implementation Plan	Quantifiable Target/Evaluation Tool	Message(s) and Pollutants Addressed	Targeted Audience(s)	Implementers
	03	04	05	06	07					
	0	0	0	0	0					
	3	4	5	6	7					
	-	-	-	-	-					
	0	0	0	0	0					
	4	5	6	7	8					
9. Other Municipal Activities										
9A Prioritize			X			Prioritize all other municipal activities that could affect SW.	PM Municipal activities prioritized	Pesticides, nutrients, sediment, organic matter, fuels, oils, trash, paint	Public facilities and employees	All Local Programs
9B Assessment				X		Assess facility conditions and operating procedures.	PM Assessment completed.			
9C Develop maintenance standards					X	Compile BMP factsheets	PM Two municipal activities targeted per year.			County-wide Program NCFCWCD
9D Training					X	Train appropriate personnel on use of BMP's for targeted activities.	PM All relevant staff trained annually for targeted activities.			

Napa County Stormwater Management Program - Action Plan 2003 to 2007

Table 8. Summary of Street Sweeping and Storm Drain Maintenance Practices

Municipality	Street Sweeping Frequency			Storm Drain Cleaning					
				Method			Frequency		
	R	C	I	H	V	SSA	R	C	I
City of Napa	1/2mo	1/2mo		X			a		
Town of Yountville	2/mo	2/mo		X			1/Yr**		
City of St. Helena	1/wk	1/wk		X			a		
City of Calistoga	2/mo	2/mo		X			a		
County of Napa									
Airport Industrial Area CSA 3			6/Yr	X					1/Yr**
Silverado Community Service District	6/Yr			X			1/Yr**		
Pueblo Park	2/Yr*			X			1/Yr**		
Monticello Park	2/Yr*			X			1/Yr**		
Circle Oaks	2/Yr*			X			1/Yr**		
Berryessa Highlands	2/Yr*			X			1/Yr**		
Other areas w/curb & gutter	2/Yr*	2/Yr*	2/Yr*						

R = Residential; C = Commercial; I = Industrial; H = By Hand; V = By Vactor; SSA = Street Sweeper Attachment
a = Storm drain cleaning as needed; some storm drains/inlets are cleaned several times/week during wet weather.
* Beginning in 2004
** Prior to the start of the rain season

Table 9 - NCSWMP Outreach Materials Summary Chart

Title	Content	Type	Targeted Audience	Distribution	Prepared by and date
County-wide Outreach					
Environmental Education Guide	Resource directory of environmental education programs in Napa County	7.0 by 8.5 booklet	Teachers, youth groups	Mailed to teachers	Environmental Education Coalition of Napa County, updated 2002
Recycle Motor Oil and Other Household Hazardous waste in Napa County	Description of common household hazardous wastes (used oil, oil filters, paint, batteries, antifreeze) and locations in Napa County where these materials can be disposed of properly.	8.5 by 14 brochure	General public.	DEM and City of Napa PW front desk.	CA Integrated Waste Management Board.
How do I recycle my old...?	Recycling locations for old refrigerators, washers, dryers, air conditioners, TV's, computers and old cars.	8.5 by 3.5 brochure	General Public	DEM front desk.	
What are household hazardous Wastes?	Which products are hazardous, how they are harmful, how to reduce HHW, location and times to dispose properly.	8.5 by 14 brochure (glossy)	General public.	DEM front desk.	Napa -Vallejo waste Management Authority; CA Integrated Waste Management Board.
Napa-Vallejo Household Hazardous Waste Facility (English)	Location and hours, tips for reducing HHW.	8.5 by 3.5 brocure	General public, businesses.	DEM front desk.	
Napa-Vallejo Household Hazardous Waste Facility (Spanish)	Location and hours, tips for reducing HHW.	8.5 by 3.5 brocure	General public, businesses.	DEM front desk.	
Washing Cars and Other Vehicles	Car washing as a source of pollution, SD's carry water untreated to waterbodies, tips for keeping pollutants out of the SD, directory to bay area wastewater treatment facilities.	8 by 8.5 brochure	Vehicle Sercice Facilities.	DEM front desk.	Bay area wastewater treatment plants and BASMAA.
Napa County					
Napa County Environmental Management Department	Overview of services provided to the public	8.5 by 14 4 page booklet	General public, businesses.	DEM front desk.	Napa County DEM

Table 9 - NCSWMP Outreach Materials Summary Chart

Title	Content	Type	Targeted Audience	Distribution	Prepared by and date
Industrial Facilities BMP's	Applicable laws, pollutants of concern, keeping a clean shop, education and training, spill prevention and cleanup, changing fluids, cleaning engines and parts, washing cars, body repair and painting, fueling, parking lots, resource directory.	8.5 by 7, 8-page booklet	Industrial facilities.	DEM front desk, business inspections.	Napa County DEM
Food Service Facilities		8.5 by 7, 8-page booklet	Food Service Facilities	DEM front desk, business inspections.	Napa County DEM
Grading Permits	County regs, how to apply, environmental review.	8.5 by 11 brochure	Applicants for grading permits.	Planning front desk	Napa County PW, 1/26/98
Guest Cottage	County regs, how to apply, environmental review.	8.5 by 11 brochure	Applicants	Planning front desk	Napa County CDP
Second Dwelling Unit	County regs, how to apply, environmental review.	8.5 by 11 brochure	Applicants	Planning front desk	Napa County CDP
Planning Clearances	Explanation of zoning, setbacks, env sensitivity, erosion control.	8.5 by 11 brochure	Applicants	Planning front desk	Napa County CDP
Erosion Control and Stream Setbacks	Who needs an ECP, who is authorized to prepare and ECP, stream setback distances, application process, when can grading occur.	8.5 by 11 brochure	Applicants	Planning front desk	Napa County CDP, 12/05/02
The Building Permit Process	Overview of the building division, permits exempted, list of required documents for a building permit, submittal and application process	8.5 by 11 brochure	Applicants	Planning front desk	Napa County CDP, 1/2003
Building Permit Clearance Contacts	Contact info for other departments and agencies involved in the review of building permits.	8.5 by 11 brochure	Applicants	Planning front desk	Napa County CDP, 8/16/01
Stream and Hillside Natural Resource Protection Guide	What is a riparian area and why is it important? Overview of applicable regulations and regulatory agencies.	10 by 12, 45 page booklet.	General public.	Napa County Planning and Flood Control front desks.	Napa County Conservation Information Group (NRCS, Napa County Planning, PW, FCD, Ag Commissioner, and RCD; SFRWQCB, DFG, CA Dept of Forestry.

Table 9 - NCSWMP Outreach Materials Summary Chart

Title	Content	Type	Targeted Audience	Distribution	Prepared by and date
Arundo - Streamside Invader	Why is Arundo a threat to CA streams? Who to contact for help.	10 by 16.6 brochure	Property owners along streams	Napa County FCD, RCD, and CDP front desks.	DFG, Team Arundo del Norte, Sonoma Ecology Center, CSU, Sacramento.
City of Napa					
The Instant Environmentalist	Water and energy conservation; waste reduction and recycling; Resource Directory. Not many messages addressing water quality.	5.5 by 8.5 Booklet	General public	Community events, workshops, etc.	City of Napa; Cuvaison Winery; Environmental Resolutions, Inc.; Tom Gamble; Law Offices of Hines and Carr, LLP; Napa Valley Vintners Assoc.

Table 10. Items in SWMP that fulfill requirements in state's general permit

Element Requirements	Tasks that fulfill requirements
ELEMENT I - Public Education and Outreach - Intent: To gain an informed and knowledgeable community.	
Distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of storm water discharges on local water bodies and the steps that can be taken to reduce pollutants in SW runoff.	2 3 4 5 6
ELEMENT II - Public Participation - Intent: To give the public opportunities to play an active role in the development and implementation of the SWMP.	
Comply with State and local public notice requirements when implementing a public involvement/participation program.	1
ELEMENT III - Illicit Discharge and Detection - Intent: To have municipalities gain a thorough awareness of their systems in order to detect and eliminate illicit discharges from infiltrating into the storm sewer system.	
Develop, implement, and enforce a program to detect and eliminate illicit discharges.	1 2
Develop a storm sewer system map, showing the location of all outfalls and the names and locations of all waters of the state and other MS4s that receive discharges from those outfalls	3
Adopt, maintain, and enforce an ordinance, policy, or other regulatory mechanism to prohibit non-storm water discharges into the MS4	1
Develop and implement appropriate enforcement procedures and actions.	2C
Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system that are not authorized by a separate NPDES permit.	2
Inform public employees, businesses, and the general public of hazards including human and environmental health risks associated with illegal discharges and improper disposal of waste.	2 4
Develop and implement procedures to address the categories of non-storm water discharges or flow listed under the Illicit Discharge Detection and Elimination Minimum Control Measure in the General Permit if the discharger identifies them as significant co	1
ELEMENT IV - Construction Runoff Control - Intent: To reduce pollutants in storm water runoff to storm sewer systems from construction sites.	
Adopt, maintain, and enforce an ordinance, policy, or other regulatory mechanism to require erosion and sediment controls at the construction sites, as well as sanctions, or other effective mechanisms, to ensure compliance, to the extent allowable under	1
Develop and implement requirements for construction site operators to implement appropriate erosion and sediment control BMPs.	1 2

Table 10. Items in SWMP that fulfill requirements in state's general permit

Element Requirements	Tasks that fulfill requirements
Develop and implement requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality	1
Develop and implement procedures for site plan review, which incorporate consideration of potential water quality impacts.	2
Implement procedures for receipt of and response to information submitted by the public regarding storm water runoff impacts due to construction projects.	3F
Develop and implement procedures for site inspection and enforcement of control measures	3
ELEMENT V - Post-Construction Runoff Control - Intent: To reduce, long-term, the type and quantity of pollutants in storm water runoff, and the quantity of water delivered to water bodies during storms from new development and redevelopment sites post-con	
Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of developme	1 2 3
Develop and implement strategies which include a combination of structural and/or nonstructural BMPs appropriate for the community.	2 3
Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law.	1
Ensure adequate long-term operation and maintenance of BMP's.	4
ELEMENT VI - Municipal Operations - Intent: To improve or protect receiving water quality by altering municipal or facility operations.	
Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.	1 2 3 4 5 6 7 8 9
Develop and implement employee training programs , which addresses preventing and reducing storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water s	1 2 3 4 5 6 7 8 9